

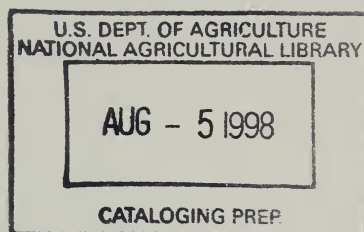
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Africa and West Asia Agricultural Situation

Review of 1976 and
Outlook for 1977



United States
Department of
Agriculture

Economic
Research
Service

Foreign
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Economic
Report No. 138

ABSTRACT: With record agricultural production in 1976, Africa's per capita food production improved by 1 percent, but still was lower than in the early seventies. Total farm output in West Asia gained 11 percent in the region's best agricultural year. Per capita food production jumped by almost 10 percent to its highest level. An outstanding feature in West Asia is the large exportable surplus of wheat in Turkey.

KEYWORDS: Africa, agricultural production, agricultural trade, Middle East, West Asia.

FOREWORD

This is one of seven regional reports supplementing the *World Agricultural Situation* which is published three times a year. The most recent issue, WAS 12, was released in December 1976. Other regional reports cover Western Europe, the Soviet Union, the Western Hemisphere, Asia and Oceania, Eastern Europe, and People's Republic of China.

Highlights of the 1976 agricultural year are provided for 32 countries in Africa and in West Asia, including some not discussed and excluding others which were discussed in FAER-125, issued in August 1976. Tabular data for some countries omitted from the text discussion are included in the appendix.

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AFRICA AND WEST ASIA AGRICULTURAL SITUATION: Review of 1976 and Outlook for 1977

SUMMARY

Total agricultural production in Africa increased almost 4 percent in 1976, considerably above the long-term growth rate of 2.4 percent. The index of total agricultural output rose from 126 in 1975 to a record 131 (1961-65=100).¹

Food production on the Continent also increased by about 4 percent to an index of 134. Per capita, food production gained about 1 percent in 1976 to 96 percent of the base period.

Farm output was up in the three largest agricultural producing countries in Africa. Egypt's increase was due largely to a better cotton crop and greater quantities of livestock products. Rising production of many commodities in Nigeria prevented per capita output from losing ground. The Republic of South Africa had an infinitesimal gain in agricultural production for 1976. Poorer grain crops were offset by gains in many commodities, particularly sugar and livestock products.

By registering a gain of 28 percent, Morocco posted the greatest improvement of all African countries in 1976. This was because of excellent grain crops and a new record high crop of sugarbeets.

The three outstanding export crops of Africa are coffee, cotton, and cocoa. In 1976, African coffee

pickings were up 4 percent to 1.11 million tons.² With high coffee prices, exports are providing record levels of revenue for coffee-producing countries in 1976 and 1977. Cotton production was also larger in 1976, but cocoa bean production was down significantly, the smallest harvest since 1968. This loss has contributed to the rise in prices of cocoa in world markets.

In West Asia, total agricultural output in 1976 rose 11 percent from the 1975 level to an index of 169.³ The increase was far greater than the long-term rate of gain, 3.4 percent. Food production reached a similar index level, and per capita food production rose by 8 percent to an index of 118.

Production in both Turkey and Iran, the two major agricultural producers of West Asia, registered significant increases. Turkey's production went up largely because of record-high wheat and barley crops. Iran also had a record wheat crop and a large increase in livestock products.

Wheat and cotton are the dominant crops in West Asia. In 1976, wheat production in the area increased to 21.8 million tons, a new high. Most of the increase was in Turkey, which is experiencing a burdensome surplus. Cotton production was up only marginally. (*Robert E. Marx*)

¹Based on production of 32 countries for which indices have been prepared. See appendix table 1 for indices of each country.

²Metric tons and U.S. dollars are used in this report; exceptions are stated specifically.

³Based on production of 8 countries for which indices have been prepared. See appendix table 1 for indices of each country.

Table 1--U.S. trade with Africa, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	3,004.3	3,444.7	535,398	493,054
Corn.....	993.6	1,002.0	134,698	116,603
Inedible tallow.....	187.6	125.5	71,647	91,488
Rice.....	169.1	239.0	68,938	89,992
Cottonseed oil.....	192.4	140.0	114,460	73,938
Other agricultural.....	--	--	231,449	313,620
Total agricultural.....	--	--	1,156,590	1,178,695
Total exports.....	--	--	4,948,900	5,205,900
Imports:				
Coffee.....	341.8	342.7	382,188	662,912
Cocoa beans.....	101.6	113.8	151,190	155,055
Sugar.....	232.3	198.9	102,202	53,979
Rubber, dry and latex.....	81.6	73.2	44,759	51,673
Cocoa butter.....	4.9	9.1	14,271	36,516
Other agricultural.....	--	--	125,972	164,984
Total agricultural.....	--	--	820,582	1,125,119
Total imports.....	--	--	8,298,800	12,636,100

Table 2--U.S. trade with West Asia, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	1,980.1	1,197.4	344,669	165,014
Rice.....	630.6	465.4	281,492	161,259
Soybeans.....	421.2	394.7	105,078	81,652
Grain sorghum.....	656.7	687.8	78,516	72,878
Wheat flour.....	203.0	240.1	48,744	57,103
Other agricultural.....	--	--	301,499	344,736
Total agricultural.....	--	--	1,159,998	882,642
Total exports.....	--	--	8,886,800	9,708,900
Imports:				
Tobacco.....	59.1	51.4	91,505	109,007
Sheep and goatskins.....	9.9	9.0	37,697	34,307
Pistachio nuts.....	8.4	8.8	22,413	25,194
Licorice root and extract.....	12.7	12.6	6,896	8,109
Dates.....	21.1	8.6	8,351	3,674
Other agricultural.....	--	--	29,132	33,745
Total agricultural.....	--	--	195,994	214,036
Total imports.....	--	--	5,546,900	9,234,500

AFRICA

ALGERIA

In 1976 Algeria produced about 50 million tons of low-sulphur, light crude oil and received premium prices for it. Production of oil and natural gas accounted for about a third of Algeria's gross domestic product (GDP). Increasing industrial production and better performance by agriculture helped push GDP to \$15 billion. Economic growth in real terms was about 12 percent, raising per capita income close to \$1,000. Increases in private consumption have been limited to about 7 percent a year since 1973. Lower incomes were exempt from taxes, and Government subsidies kept the prices of basic necessities low. Public consumption increased at 9 percent per year mainly because of increasing expenditures on education and health.

Agriculture and Trade

Petroleum and its products made up the bulk of the estimated \$5.0 billion of exports, to which agricultural exports contributed less than 5 percent. Imports were valued at \$5.6 billion; the trade defi-

cit was financed by loans and credits from foreign banks and to a smaller extent by the transfers from Algerians working in France. Capital and semi-manufactured goods accounted for over 60 percent of the value of imports. Foodstuffs, largely wheat, vegetable oil and oilseeds, sugar, and dairy products, made up about 20 percent of the total in 1975, but their share dropped to about half this in 1976, because less wheat was imported and lower prices were paid for some commodities, notably wheat and sugar.

Algeria signed an economic cooperation agreement with the European Community in 1976. European coal and steel will enter Algeria duty free, and the EC will allow up to 1.1 million tons of Algerian petroleum products to enter duty free. The EC duty on Algerian table wines was reduced 80 percent, but only gradually increasing amounts will be allowed to enter the EC, beginning with 250,000 hectoliters the first year and rising to 450,000 hectoliters in the fifth year. The EC also

Table 3--U.S. trade with Algeria, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	872.1	394.1	184,320	70,676
Inedible tallow.....	25.0	27.5	8,936	10,341
Corn.....	67.8	80.5	7,846	9,649
Lentils.....	8.0	15.1	3,585	5,979
Other agricultural.....	--	--	11,659	15,460
Total agricultural.....	--	--	216,346	112,105
Total exports.....	--	--	631,800	487,000
Imports:				
Geranium oil.....	--	--	77	254
Wine.....	--	--	0	24
Coriander.....	--	--	0	2
Other agricultural.....	--	--	85	0
Total agricultural.....	--	--	162	280
Total imports.....	--	--	1,358,600	2,210,300

will grant or loan \$110 million to Algeria over the next 5 years.

France remains Algeria's chief supplier, but the United States imported \$2.2 billion worth of Algerian petroleum products in 1976, making it Algeria's leading outlet.

Though value added by agriculture in 1975 was only 7.5 percent of GDP, about 50 percent of the Algerian work force was employed in agriculture. Wheat output, estimated at double the 1975 level, led a general increase in agricultural production in 1976. This reduced the wheat import requirements from the 1.5 million-ton level, where they had been in 1973/74, to around 750,000 tons. U.S. wheat exports to Algeria declined in 1976. In 1977, Algeria will need to import much larger quantities because of drought.

Wine is still the most important export crop, but the continuing paucity of markets forced Algerian farmers to uproot 30,000 hectares of the lower grade vineyards and plant other crops.

Favorable weather was an important cause of the increased agricultural production in 1976, but

policy changes begun in 1975 may also have had an effect. Instead of the Ministry of Agriculture making the management decisions for the large state farms (self-managed sector), the farms themselves could make their own production and investment plans under supervision of the regional authorities and the local branches of the National Bank of Algeria. The Government also is changing the agricultural price system with the aim of increasing incentives to produce.

Production and service cooperatives established under the Agrarian Revolution totaled over 5,000 in 1976; they supply farm inputs and provide extension and marketing services. About 60 socialist villages have been built or are under construction. The third phase of the Agrarian Revolution, which aims to establish livestock cooperatives on the grazing lands of the steppes, has begun on a pilot basis in three provinces. Preparations are being made for merging the state farms and the Agrarian Revolution cooperatives. (*Herbert H. Steiner*)

ANGOLA

Newly independent Angola is finding it difficult to reconstruct the economy torn by war and disrupted by the mass flight of most of the entrepreneurs, managers, technicians, and skilled workers. But the major foreign exchange earner, crude petroleum from the fields off the shore of Cabinda, continued to bring Angola an income of about \$400 to \$500 million per year. Production of diamonds, normally the second largest export, declined sharply because of low labor productivity and smuggling. Low productivity is a general problem in Angola because many workers have a misconception of their responsibilities under the new Government.

Agriculture and Trade

Angola, formerly the second largest supplier of coffee in Africa, produced about 200,000 tons per year in the early seventies. Production first declined when the migrant workers from the south left the commercial plantations. Later, as independence approached, the plantations were abandoned

by their owners and managers. The Government then took over, but was hampered by lack of experienced managers and other skilled manpower; production has not reached the previous level. Production was not the only problem. During the war some 100 bridges were destroyed, and only 6,000 trucks remained out of a former fleet of 24,000. Coffee and other commodities could be transported to market only with great difficulty. The population in the interior found itself unable to sell its production, and at the same time unable to obtain supplies of essential goods.

The Government of Angola has nationalized industry and large-scale agriculture. These will be run as state enterprises. The smaller farmers will be organized into cooperatives. Private enterprise will be allowed to continue only in a limited number of small-scale activities.

The United States exported 48,000 tons of wheat valued at \$8 million to Angola in 1976 and imported coffee valued at \$76 million. (*Herbert H. Steiner*)

BURUNDI

Burundi profited from the high price of coffee which accounts for over 80 percent of the value of exports. Yet, 22,000 tons of coffee, even at a high price, were not enough to lift Burundi out of its economic problems characterized by slow growth and a per capita gross national product of less than \$100. Agriculture accounted for 60 percent of value added. Burundi produces cassava, corn, bananas, yams, and sorghum (3 crops per year in some

areas), but productivity growth in agriculture has barely kept up with the 3.9 million population growing at 2.4 percent per year.

The United States imported coffee valued at \$21.5 million from Burundi in 1976. U.S. agricultural exports to Burundi valued at \$1.2 million, consisted mainly of cereals, nonfat dry milk, and edible oils for relief. (*Herbert H. Steiner*)

EGYPT

Egypt had a GNP of about \$12 billion in 1976, and personal incomes are rising by over 7 percent annually.

Changes in economic policy have been slower than expected. Over 70 percent of industrial output still comes from public companies. International firms have increased activities related to petroleum extraction, banking, and tourism. Yet, foreign exchange complications have prevented many foreign private firms from investing in the Egyptian economy.

Modifications of the foreign currency laws in November 1976 gave Egyptians greater freedom in banking and international financial transactions. Greater freedom in banking encouraged more Egyptians to go work in other countries.

Food prices in Egypt are among the lowest in the world yet the average Egyptian spends about half his income for food. The average diet contains about 2,650 calories per day—one of the best in the Mideast.

Government subsidies for food increased from \$95 million in 1972 to \$1.4 billion in 1976, including about \$800 million for wheat products alone. Bread costs only 2.4 cents per pound in Cairo, with no limit on individual purchases. Rice, cooking oil, sugar, and meat are sold at low fixed prices in cooperative shops under a ration system.

The Ministry of Supply handles most imports of basic food items. Over 90 percent of the bread sold in Cairo and Alexandria is made from imported grain. About one-fourth of Egypt's grain consumption during 1971-76 came from imports. Over half the vegetable oil supply and all tobacco, tea, coffee, rubber, and jute are imported.

The Government has a monopoly for exports of 20 crops, including cotton, rice, oranges, potatoes, onions, and jasmine. These products must be sold by the farmer to the public firm at prices fixed by the Government.

Agricultural Production

Egypt's agricultural production increased about 4 percent in 1976 because of a 7-percent rise in cotton output and dramatic gains in vegetable yields. Total grain production declined slightly to 7.24 million tons. Rice production increased about 4 percent, but wheat and corn production declined.

The physical area of cropland increased slightly in the last decade to about 6 million acres. Because of multiple-cropping, the area reported for crops harvested approximates 11.4 million acres annually.

Egypt produces a year-round supply of fruits and vegetables. Increased multiple-cropping and attractive prices for fresh vegetables in the open market have caused vegetable production to rise. Vegetable production rose 8 percent in 1976 to 7.6 million tons. Fruit production in 1976 tripled the 1952 level. Orange orchards have been established extensively in new areas developed in the western desert. Output of oranges and tangerines reached 1 million tons in 1976.

By world standards, prices for farm products in Egypt are relatively low. Government procurement prices, marketing requirements, and input sales management are now viewed as a disincentive to farmers.

Rural income remains relatively low because farms are small, use of inputs still remains below necessary levels, and prices for basic crops are low. For example, procurement prices for wheat and rice in 1976 were LE 50 per ton (about \$72). Gross receipts from wheat and rice to the farmer last year averaged about \$100 per acre. In contrast, farmers received about \$300 per acre from sales of cotton and cottonseed.

Foreign Trade

Total agricultural imports increased from \$287 million in 1972 to \$1.6 billion in 1976. The commodity mix is becoming more diversified, and the

U.S. share remains below the 1973 peak of 35 percent.

Total exports by Egypt in 1976 were less than \$1.8 billion. Income from Suez Canal tolls, the Sumed petroleum pipeline, tourism, and remittances from Egyptians working abroad provided about \$1 billion in foreign currency. Total imports in 1976 were estimated at about \$4.4 billion. The \$2.6-billion gap between foreign exchange earnings and imports was covered through loans and grants from developed countries and OPEC. Saudi Arabia, the United States, the EC, Kuwait, United Arab Emirates, Iran, and Australia were major sources of credit.

Egypt's imports of wheat and flour combined (in wheat equivalent) surpassed 3.7 million tons in 1976, with arrivals from the United States and Australia increasing. Total imports of wheat flour increased to over 600,000 tons in 1976. Imports of U.S. flour in 1976 were over 300,000 tons—4 times the 1975 arrivals.

Corn imports increased to about 670,000 tons in 1976, mostly from the United States. Demand for imported corn increased because local production declined and use of corn for commercial dairy, sheep, and poultry operations expanded. The

starch industry also used more imported corn. The use of corn for animal feed has doubled since 1974.

Because of rapid expansion in Egypt's soap output, tallow imports increased to about 150,000 tons in 1976. U.S. tallow exports to Egypt reached a record in 1976. A commodity loan for \$35.8 million provided by the U.S. Agency for International Development (USAID) helped Egypt finance larger purchases of U.S. tallow.

Imports of leaf tobacco increased to about 31,000 tons in 1976 for a value of over \$70 million. Demand for cigarettes continued to exceed the supply. Prices for cigarettes remained fixed at about 40 cents per pack.

Egypt imported over 250,000 tons of sugar in 1976, mostly from India and Latin America. Egypt was a significant exporter of sugar to neighboring countries through 1973. In late 1974, imports of sugar began as exports dwindled.

Egyptian agricultural exports in 1976 were about one-sixth above the \$750 million in 1975, but still remained below the peak of \$984 million in 1974. High cotton prices pushed the value for cotton exports to a record \$715 million in 1974, but lower prices and smaller shipments caused cotton exports to fall to \$514 million in 1975. Cotton

Table 4--U.S. trade with Egypt, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	935.2	1,339.1	154,746	168,853
Corn.....	511.0	644.2	68,543	74,081
Cottonseed oil.....	192.4	138.3	114,449	72,975
Inedible tallow.....	105.2	127.5	42,647	51,158
Wheat flour.....	73.1	230.9	13,771	46,938
Other agricultural.....	--	--	30,536	39,686
Total agricultural.....	--	--	424,692	453,691
Total exports.....	--	--	682,700	810,000
Imports:				
Cotton.....	0.2	0.9	473	1,984
Inedible molasses.....	0	1.5	0	836
Essential oils.....	--	--	230	401
Other agricultural.....	--	--	1,022	1,439
Total agricultural.....	--	--	1,725	4,660
Total imports.....	--	--	27,500	92,500

exports increased from 185,000 tons in 1975 to about 200,000 tons in 1976 and a rebound in prices pushed the value above \$600 million.

The USSR has accounted for one-third of Egypt's cotton exports in recent years, and Eastern Europe, another third. Imports of U.S. short staple cotton will allow larger exports of expensive extra long staple cotton in 1977, possibly pushing total cotton exports to 240,000 tons for a value of more than \$700 million.

Orange exports are scheduled to reach 350,000 tons in 1977—up from 210,000 tons in 1975. Larger exports of oranges to USSR, Eastern Europe, and the Mideast are underway. Export value should reach \$60 million in 1977.

Jasmine paste exports climbed to about \$40 million in 1976 because of larger deliveries to the European Community and USSR. Exports of potatoes exceeded 125,000 tons in 1976, double the 1975 level. Exports of onions remained below 100,000 tons in 1976 because of inadequate supplies.

Rice exports declined steadily from 772,000 tons in 1969 to only 90,000 tons in 1976. Exports

through prior trade agreements are scheduled at 41,000 tons for 1977. Shortages of rice in cities have made rice exports unpopular.

Outlook

Egypt's economy is likely to improve in 1977, despite the constant shortage of foreign exchange, food distribution bottlenecks, and inflation. Greater financial assistance from other Arab countries, the United States, the EC, and Canada will bolster the economy. Also, exports of petroleum and agricultural commodities should reach record values in 1977. Much larger exports of petroleum to the United States are planned.

U.S. agricultural exports to Egypt should increase by more than 20 percent in 1977. New foreign exchange regulations will allow private importers to greatly increase purchases of many U.S. food products, and Egypt will receive about \$1 billion in financial assistance from USAID in 1977, including commodity loans to import agricultural raw materials for factories. (*John B. Parker*)

ETHIOPIA

Ethiopia's economy is suffering from strains brought about by transition to programs of a new Government and associated internal disturbances.

When considering just three of the many facets of the economic picture—the situation in the major urban centers, the situation in the countryside, and Ethiopia's position as a member of the world trading community—contrasting but interrelated features are revealed.

In the major cities, the rise in the price index for food over the past 3 years has been phenomenal, especially for basic items such as cereals, dairy products, spices, and fruit and vegetables. Acute shortages of these commodities were brought about by a decline in the flow from producer regions. With a better supply situation by the end of 1976, prices had begun to stabilize. The lack of basic items was caused by such factors as a greater consumption of food items by the rural people following the more equitable distribution of land, transportation difficulties, and organizational difficulties in distributing staples through urban cooperatives.

In the countryside, some areas had normal or above average output of crops, but in others, drought and serious attacks by pests caused crop shortfalls. Farm production in some areas suffered from the civil strife.

Now, with conditions in some areas becoming more stabilized, it appears farmers are deciding to hold back less and sell more of their crops to mer-

chants who are replenishing their almost completely depleted stocks. As the buildup continues, and if there are no serious crop setbacks, there should be a gradual drop in the food price index.

Ethiopia's external economic status looks good as it is in a strong balance of payments position, having had current account surpluses in 4 out of the last 5 years. At the same time, its foreign exchange regulations are exceptionally liberal for a developing country.

Agricultural Production

Despite reports of some crop shortfalls, there are indications that total production in 1976 remained fairly close to the 1975 level. The production of teff (*Eragrostis abyssinica*), a cereal of the lovegrass family and staple food in Ethiopia, is reportedly down somewhat and wheat is about one-quarter below the 880,000 tons harvested in 1975, thereby necessitating imports if wheat consumption is to remain at traditional levels.

Pulse production appears to be at approximately the same level as 1975. Oilseed output is somewhat lower while the 1976 raw sugar output is reportedly slightly above the previous year's output of 150,000 tons. Coffee, Ethiopia's largest export item, is expected to have yielded a generally favorable current crop of about 120,000 tons, 5 percent above the 1975 harvest. Some 80,000 tons of coffee are expected to be exported from the current crop.

Livestock production appears to be gaining but has not reached pre-drought levels.

Foreign Trade

Ethiopia's foreign trade situation is its most impressive area of strength. The level of foreign exchange reserves is currently estimated to be sufficient for about a 12-month import coverage and, furthermore, this surplus has been maintained for 4 years. With coffee prices at a high level, Ethiopia is in a strong external economic position.

Ethiopia's main exports are agricultural—coffee, hides and skins, pulses, oilseed, live animals, and sugar (table 5). Throughout 1975, prices steadily rose for nearly all export items, and coffee continued to rise all through 1976. As early as the end of the first quarter of 1976, Ethiopia's coffee price index was officially listed at 177 (1968=100) and by

the end of 1976, green coffee prices had doubled their March price level. Increases in the value of coffee exports have been principally due to the high world price rather than a substantial increase in the volume.

In 1976 oilseeds slipped somewhat as an export item since the international price had a somewhat dampening effect and farmers shifted from oilseeds to cereal production. Also, fewer pulses reached the export market in the first half of 1976 and the annual value of this important export item will probably be less than in earlier years. This appears to be due to a lower level of the production of haricot beans and a ban on the export of certain pulses which were determined to be essential for domestic use.

On the import side, Ethiopia normally purchases a relatively few agricultural items, usually

Table 5--Ethiopia: Major exports and imports, selected years

Commodity	1971	1973	1975
	1,000 Ethiopian dollars		
Exports:			
Coffee.....	175,163	189,772	152,679
Oilseed.....	32,064	52,045	83,985
Pulses.....	22,168	77,152	64,855
Hides and skins.....	25,728	68,629	34,455
Live animals.....	2,479	7,977	26,764
Sugar.....	4,116	18,689	9,489
Other exports.....	47,870	73,087	96,203
Total exports.....	309,588	487,351	468,430
Imports:			
Petroleum products.....	43,539	41,959	141,655
Chemicals.....	36,771	51,612	96,269
Machinery.....	87,265	72,905	76,849
Metal, manufacturing, and electrical material.....	79,506	62,585	75,475
Motor vehicles.....	54,241	56,451	75,317
Medical and pharmaceutical products..	13,775	14,498	22,430
Agricultural items.....	34,348	27,010	21,234
Other imports.....	120,080	121,192	138,687
Total imports.....	469,525	448,212	647,916

Source: Quarterly Bulletin of National Bank of Ethiopia.

Note: 2.085 Ethiopian dollars = U.S.\$1.00.

Table 6--U.S. trade with Ethiopia, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	10.4	23.1	1,724	2,845
Corn-soy-milk blend.....	2.0	5.5	906	2,350
Non-fat dry milk.....	--	0.3	12	338
Other agricultural.....	--	--	1,000	1,154
Total agricultural.....	--	--	3,642	6,687
Total exports.....	--	--	69,800	77,700
Imports:				
Coffee.....	32.0	42.2	40,229	90,638
Hides and skins.....	0.3	0.3	1,689	1,063
Beeswax.....	0.2	0.2	435	619
Dried beans.....	0.4	1.0	201	588
Other agricultural.....	--	--	3,484	139
Total agricultural.....	--	--	46,038	93,047
Total imports.....	--	--	49,400	94,400

well under 5 percent of total imports. Machinery, chemicals, petroleum and products, textiles, and such head the import list. However, since the change in Government there has been some decline in the purchase of machinery and transport equipment. This may mean a future increase in the purchase of all machinery and equipment, including agricultural machinery and implements, by the state sector.

Ethiopia's imports from the United States increased in 1976. Only 8.6 percent of the total U.S. exports to Ethiopia were agricultural commodities, 43 percent of them unmilled wheat, dietetic items, and infant cereal preparations. Small amounts of dried dairy products, rice, corn, dried vegetables, oil cake meal and residues, soybeans, fat and tal-

low, soybean oil, and miscellaneous food preparations were on the U.S. export list.

Outlook

Recent reports from Ethiopia indicate that there may be shortfalls in some food crops during 1977 because of an early ending of the rains and the inroads made by disease and pests during 1976. Cereal imports—probably wheat—of 200,000 to 300,000 tons could be required to meet domestic needs, and an appeal was made in early 1977 for additional assistance beyond that already committed before December 1976. Some, possibly as much as 70,000 tons, of these cereals are expected to be purchased commercially. (*H. Charles Treacle*)

GHANA

During 1975 the Ghana national consumer price index showed an increase of 29.7 percent. The Government of Ghana singled out dealing with inflation as its major economic objective in 1976.

Most industries dependent on imported raw materials in 1976 were in short supply due to restrictions on foreign exchange. The fats and oils industry was most affected.

Agricultural Production

The two most important economic indicators in Ghana are: (1) Annual production of cocoa beans, and (2) the price in New York per pound of Spot Accra cocoa beans.

Production of Ghana cocoa beans in 1976/77 is estimated at 320,000 tons, down 19 percent from the 397,000 tons produced in 1975/76. New York

Spot Accra cocoa bean prices averaged 155.4 cents per pound for December 1976 and 109.6 cents for 1976. These compare with the 74.9 cents per pound average for 1975, 98.3 cents for 1974, and 17.3 cents for 1965. In 1977 the price went even higher—193.1 cents per pound for February and 205.8 in March.

Cocoa trees suffered from swollen shoot and capsid insects during 1976. Deficient rainfall reduced yields of late millet and sorghum in the Upper Region and parts of the Northern Region. Grain-growing regions have also been adversely affected by the buildup of long-lived seed of the parasitic weed, *Striga hermonthea* (witchweed).

Agricultural Policy

For the 1976/77 season, the price paid cocoa farmers for Grade I cocoa beans was increased from 23.20 cents a pound to 29 cents a pound. The bonus of \$2.61 per ton was continued.

The Crop Extension Division of the Ministry of Agriculture promotes crops suited to each region, as follows:

Volta Region: Sugarcane, coconuts, cashews, ginger, rice, and yams.

Greater Accra Region: Tomatoes, pineapples, corn, cassava, and vegetables.

Eastern Region: Oil palms, sugarcane, pineapples, cocoa, citrus fruits, corn, cassava, and plantains.

Central Region: Sugarcane, oil palms, rubber, coconuts, ginger, corn, and cassava.

Western Region: Oil palms, citrus fruits, rubber, coconuts, cassava, plantains, and bananas.

Ashanti Region: Cocoa, oil palms, kenaf, citrus fruits, ginger, tomatoes, yams, corn, cassava, and vegetables.

Brong-Ahafo Region: Oil palms, cocoa, tomatoes, peanuts, ginger, pineapples, corn, rice, and yams.

Northern Region: Peanuts, millet, tomatoes, cotton, tobacco, kenaf, and yams.

Upper Region: Rice, millet, sorghum, peanuts, tobacco, and cotton.

Foreign Trade

The foreign trade picture in Ghana in 1975 was similar to that of earlier years. Cocoa beans and products totaled \$554 million, over 99 percent of agricultural exports totaling \$558 million. Coffee exports were valued at \$2.4 million and corn \$1.0 million.

Table 7--U.S. trade with Ghana, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Cotton.....	7.6	6.3	8,121	8,962
Wheat.....	33.5	44.6	6,067	6,626
Tobacco.....	0.9	1.0	3,474	4,258
Inedible tallow.....	1.2	0.7	4,510	2,761
Other agricultural.....	--	--	2,657	7,708
Total agricultural.....	--	--	24,829	30,315
Total exports.....	--	--	99,800	133,100
Imports:				
Cocoa beans.....	46.2	48.6	64,839	64,643
Cocoa and cocoa cake.....	2.7	3.8	1,604	2,834
Cocoa butter.....	0.3	0.4	1,374	1,282
Cashew nuts.....	0	0.1	0	773
Other agricultural.....	--	--	1,013	52
Total agricultural.....	--	--	68,830	69,584
Total imports.....	--	--	150,500	155,100

Agricultural imports in 1975 added up to \$46.4 million, including \$19.5 million for wheat, \$10.3 million for cotton, \$5.9 million for tallow, \$4.8 mil-

lion for dry milk and cream, \$3.3 million for tobacco, and \$1.6 million for palm oil. (Snider W. Skinner)

IVORY COAST

Agriculture continues to be the most important and dependable sector of the Ivorian economy. Agriculture and agriculture-related industries employ 75 percent of the work force and contribute one-third of the gross domestic product. In 1975, the per capita income was over \$500, one of the highest in Africa.

Agricultural Production

Strong demand for coffee and cocoa, along with high prices received for these products, makes a bright picture for Ivory Coast's agricultural economy—and general economy as well.

Despite a present oversupply of sugar in the world (with accompanying low prices), Ivory Coast has big plans to grow sugarcane to supply domestic needs and to export. The country's first sugar complex (plantation and refinery), beginning to supply domestic needs, should do so completely next year. The Government has announced plans

to build 5 additional complexes by 1990 to produce sugar for export.

Rice production has increased to the point of surplus, with milling and storage facilities inadequate to handle all of the crop.

Agricultural Policy

Prices paid to farmers, as of January 1977, converted to U.S. cents per pound, were as follows:

<i>Commodity</i>	<i>Cents per pound</i>
Cocoa	34.0
Coffee	34.0
Palm kernels	7.6
Palm bunches	1.5
Rice (paddy)	14.2
Cotton, unginned (No. 1 White)	15.1
Cotton, unginned (No. 2 yellow)	13.2
Copra (No. 1)	11.3

Table 8--U.S. trade with Ivory Coast, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Rice.....	1.2	2.4	630	1,244
Infants food.....	0	0.1	0	305
Tobacco.....	--	0.1	20	224
Peanut oil.....	0.1	0.1	50	136
Other agricultural.....	--	--	1,265	308
Total agricultural.....	--	--	1,965	2,217
Total exports.....	--	--	78,300	63,600
Imports:				
Coffee.....	57.9	79.8	75,253	171,643
Cocoa butter.....	4.5	8.7	12,588	35,234
Cocoa beans.....	34.0	19.1	54,855	27,375
Cocoa and cocoa cake.....	4.6	5.7	2,631	5,450
Other agricultural.....	--	--	3,352	2,752
Total agricultural.....	--	--	148,679	242,454
Total imports.....	--	--	157,300	252,700

Copra (No. 2)	10.4
Tobacco (extra good)	37.8
Tobacco (average)	32.1
Tobacco (poor)	15.1
Pineapples (on farm)	2.4
Pineapples (delivered to factory)	2.8
Peanuts (shelled)	9.4
Corn	4.7

Daily wages of farm and forest workers, as of January 1977, converted to U.S. dollars per day, were as follows:

Dollars per day

Coffee, cocoa, cotton, rice plantations	1.04
Plantations not listed in line above	1.25
Livestock plantations	1.25
Lumberjacks, log handlers, saw mill workers	1.56

Foreign Trade

About 305,000 tons of coffee were exported during the 1976 marketing year; it was valued at \$333 million. Cocoa bean exports of 200,000 tons were

worth \$250 million. Fresh pineapple exports amounted to 69,000 tons and canned pineapple exports, 130,000 tons. Banana exports for the first 8 months of 1976 were 64,000 tons, down 27 percent from a year earlier. Palm oil exports for 1976 are estimated at 100,000 tons and palm kernel exports at 20,000 tons.

Each year more cotton is spun locally, leaving less for export. This year, 14,820 tons were exported, or 57 percent of the crop. Last year 14,640 tons (61 percent of the crop) were exported.

On the import side, Ivory Coast in 1976 imported 100,000 tons of wheat for milling and 30,000 to 40,000 tons of sugar.

Outlook

First commercial plantings of a new coffee hybrid, arabusta, are about to come into bearing. The new variety, a cross between robusta and arabica, inherits a fine flavor and aroma from arabica, as well as a larger bean size than robusta, and a lower caffeine content. From robusta, it inherits sturdiness, rust resistance, and the ability to thrive in Ivory Coast's hot, wet climate. So far, arabusta yields are only about 60 percent of average robusta yields. Arabusta is well suited for production of instant and decaffeinated coffees. (Snider W. Skinner)

KENYA

Kenya's agricultural resource base is quite varied, including high rainfall, high altitude areas, and low, dry areas. These differences have been utilized in forming a fairly diversified agriculture. With widely fluctuating world market prices for commodities, this diversification has been significant in strengthening Kenya's economy.

Kenya's major agricultural exports, coffee and tea, are receiving very high prices. Exports of these, particularly coffee, are estimated to have given the country a balance-of-payments surplus during 1976. GDP growth is estimated at 4 to 4.5 percent, compared with less than 1 percent during 1975. Inflation was reduced to a rate less than 14 percent in 1976.

Agricultural Production

Agricultural production at constant prices is estimated to have increased 2 to 3 percent during 1976. This is an improvement over 1975's performance when agriculture was nearly stagnant. Marketed agricultural production may have increased 8 percent.

Some parts of the country experienced droughts; however, a number of crops exceeded the production levels of a year earlier.

Grains

Wheat production during 1975/76 rose about 11 percent. Use for food rose about 5.5 percent. Wheat consumption has not changed much for the last 7 years, perhaps even dropping slightly. Production fell during 1969-73 but increased during 1975 and 1976.

The intent is to stop fragmenting of large farms of former European owners into small holdings. However, since the demand for land is an emotional issue, this new policy intent will be very difficult to carry out. If it is implemented, wheat production should benefit since it is the crop that is usually dropped when a large farm is fragmented.

Corn production from 1969 through 1976 is estimated to have increased about 3.6 percent per year. Imports were necessary once during those years. Significant exports were made during 3 years, the largest amount being 195,000 tons during 1975/76.

Table 9--Kenya: Producer price increases for selected items, 1976

Item	September 1976 price	Increase over--	
		Previous price	1974 price
	Dollars per 1,000 kilograms	Percent	
Corn.....	106.44	23	100
Wheat.....	159.68	20	71
Meat <u>1/</u>	1,020.00	8	50
	Dollars per gallon		
Milk.....	0.60	41	71

1/ Cold dressed weight, fair average quality.

Table 10--U.S. trade with Kenya, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Corn-soy-milk blend.....	0.9	2.3	341	1,062
Inedible tallow.....	1.2	1.4	564	638
Nonfat dry milk.....	--	0.5	124	526
Bulgur wheat.....	0.3	1.2	58	214
Other agricultural.....	--	--	5,158	1,481
Total agricultural.....	--	--	6,245	3,921
Total exports.....	--	--	48,500	43,000
Imports:				
Coffee.....	13.9	13.9	15,513	32,916
Tea.....	8.4	10.7	11,050	13,828
Pyrethrum.....	0.2	0.2	3,478	5,377
Cashew nuts.....	0.2	0.7	280	1,491
Other agricultural.....	--	--	1,887	1,439
Total agricultural.....	--	--	32,208	55,051
Total imports.....	--	--	36,100	60,200

As the population increase is estimated near the 3.5 percent per year level and corn is the major food, large corn surpluses are not being generated.

From July 1975 through June 1976, corn purchases by the Maize and Produce Board increased nearly 23 percent above the previous year and reached the relatively high level of 555,000 tons. Corn stocks remained above the "strategic" reserve level of 180,000 tons during all of 1976 except November. Smallholders are becoming increasingly important in corn production. Modern inputs are being adopted.

Other Crops

Coffee production during 1976 is estimated at 80,300 tons, a 21-percent increase over the previous year and an alltime high. High world coffee prices resulted in coffee foreign exchange earnings for Kenya valued at about \$202 million during 1976--nearly a 170-percent increase over 1975. It is estimated that coffee accounted for 26 to 27 percent of export revenue.

Tea production increased about 10 percent in 1976 to 62,000 tons. This is also a record crop, and with good demand in world markets (related to high coffee prices), tea was the second highest export earner. Kenya's tea is of high quality.

Sugar production did not change much during 1975 and 1976. Total area under cane and harvested area increased, but rainfall in the producing area near Kisumu in Western Kenya was below average. Consumption is expected to have remained below the 1973/74 (May-April) level during 1976/77. Imports are estimated at 23,000 tons. Projects are underway for expansion of sugar production; the objective is to develop an export capability by the early eighties. Producer prices were increased about 27 percent on March 1, 1977.

Dry bean production dropped sharply in 1976. Mexican 142 production was discouraged as large stocks were held by the Maize and Produce Board. Erratic rainfall in the major producing areas also helped reduce food bean production. Potato production has been increasing and increased nearly 20 percent last year. But supply outran demand and retail prices dropped as much as 50 percent below 1975 levels.

Livestock production

Some 250,000 head of cattle were slaughtered in 1976 by the Kenya Meat Commission. This is a large increase over the very low level, 134,000, of 1975. Marketing of many animals was forced due to severe drought in the major rangeland areas.

It is estimated that milk production has been decreasing in recent years. In 1976, output declined primarily because of the below average rainfall in some of the dairy areas.

Foreign Trade

The value of Kenya's exports increased again in 1976. Major exports continued to be coffee, tea, live-stock products, pyrethrum extract and flowers, petroleum products, and sisal fiber and tow.

The United Kingdom continues to be Kenya's principal market for agricultural products, followed by the United States and West Germany. The only large agricultural imports in 1976 were tobacco and cotton from Tanzania, cotton from the United States, sugar from various sources, and some wheat from Argentina and the EC.

The further breakdown of the East African Community probably means less transport between the East African countries.

Policy—Prices

Agricultural producer prices have been increased in recent years, tending to shift the terms of trade advantage to rural areas. In September 1976, the Government increased producer prices for a number of major commodities.

On March 1, 1977, the Government announced consumer price increases. Often caught in conflict between producers and consumers, it holds down consumer food prices as much as possible since food and beverages account for about 50 percent of the cost of living.

Outlook

Foreign exchange earnings from Kenya's agricultural exports should remain high due to the continuing high prices expected for coffee and tea in world markets. Coffee production is expected to remain high in 1977. Tea production will likely increase slightly. New development for smallholders is being financed.

Competition from high barley prices is expected to continue to hold down the size of wheat production increases. Wheat stocks should remain adequate, with some imports expected during 1977. Due to poor rains in many parts of Kenya during 1976, corn deliveries to the Maize and Produce Board will probably decline about 15 percent compared with 1976. Stocks are expected to remain adequate but no exports are anticipated. (*Lawrence A. Witucki*)

LIBERIA

Liberia's chief earner of foreign exchange, iron ore, was in less active demand in 1976 and about 4 million tons of ore were stock-piled.

Liberica cherries	20
Cocoa, grade I	55
Cocoa, grade II	52.5

Agricultural Production

Rubber continues to be the dominant agricultural product in Liberia. The management of the largest rubber plantation in Liberia predicts that by 1990 natural rubber will supply 40 percent of the world's total needs for rubber, natural plus synthetic. Natural rubber now supplies 33 percent.

A test run of the recently completed sugar mill of the Liberian Sugar Company was scheduled for March 1977. The mill will open officially in July 1977.

Agricultural Policy

Effective December 27, 1976, producer prices paid by the Government-owned Liberian Produce Marketing Corporation were as follows, expressed in U.S. cents per pound:

Under legislation recently enacted by the Liberian Legislature, any person desiring to acquire 100 acres or less of land for agricultural development will be given 7 years to pay for the land and will also enjoy tax exemption for 7 years.

The U.S. Agency for International Development (USAID) hopes to expand its program in Liberia in 1977. A proposed program totaling \$15.8 million would include:

- (1) Grants of \$5.3 million for technical assistance projects.
- (2) A loan of \$8.0 million for building rural access roads.
- (3) A loan of \$2.5 million to establish health centers in rural areas.
- (4) Agricultural cooperative development.
- (5) Agricultural program development.

Commodity

Cents per pound

Robusta coffee
Liberica coffee

70
60

Foreign Trade

Liberia's major agricultural exports continue to be rubber, palm kernels, palm kernel oil and cake,

Table 11--U.S. trade with Liberia, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Rice.....	23.7	28.3	9,360	7,905
Wheat.....	9.9	14.9	1,702	2,379
Coffee.....	--	--	136	247
Cornmeal.....	--	--	268	127
Other agricultural.....	--	--	2,943	3,091
Total agricultural.....	--	--	14,409	13,749
Total exports.....	--	--	89,600	84,600
Imports:				
Rubber, dry and latex.....	71.8	68.5	40,301	48,478
Coffee.....	2.8	3.1	3,077	4,912
Palm kernel oil.....	2.9	1.5	1,135	1,416
Cocoa beans.....	0	0.9	0	1,285
Other agricultural.....	--	--	24	37
Total agricultural.....	--	--	44,537	56,128
Total imports.....	--	--	96,400	98,100

cocoa, and coffee, with rubber by far the largest farm export. Major nonfarm exports are iron ore and logs.

The United States is the favored supplier for a

long list of agricultural imports, of which rice is the most important. Petroleum and products are Liberia's major nonfarm imports. (*Snider W. Skinner*)

DEMOCRATIC REPUBLIC OF MADAGASCAR

Rice production dropped by about 10 percent in 1976. The Government attributed this to the drought which affected southern Madagascar, and to the two typhoons that struck the northeast during the first months of 1976. The rice shortfall required increased rice imports perhaps as much as, or exceeding, 100,000 tons. In early 1977 the producer price of rice was raised by 16 percent; at the same time the price to the consumer was reduced by 22 percent.

With the goal of a socialist economy, the Government continued to nationalize more and more of

basic production and trade. Large sugar and coffee plantations were taken over in 1976.

Despite lower receipts for cloves and vanilla, high coffee prices held Madagascar's 1976 exports near the \$332 million level registered in 1975.

U.S. agricultural exports to Madagascar in 1976 were valued at \$1.5 million of which tallow accounted for \$1.3 million and relief foods for most of the balance. U.S. agricultural imports from Madagascar totaled \$57 million in 1976; coffee accounted for \$37 million; vanilla beans, \$10.8 million. The rest consisted of sugar, cloves, clove oil, and dried lima beans. (*Herbert H. Steiner*)

MAURITIUS

In 1975 and 1976, (deflated) GDP declined between 5 and 10 percent after increasing 12 percent in 1973 and 11 percent in 1974. The decline in 1975 was mainly due to the damage suffered by the sugar crop during the disastrous typhoon Gervaise. But in 1976, the cause was the low price of sugar, Mauritius' principal export. Sugar production, estimated at 689,000 tons, did not regain the 756,000-ton level set in 1974 and the price was 30 percent below the 1975 level.

The trade balance was \$120 million in deficit for 1976. This was tempered by earnings from tourism and exports of manufactured products from the free trade zone to make a negative balance of payments of \$60 million.

Mauritius exported 447,000 tons of sugar in 1976, down 19 percent from 1975; 394,000 tons were exported to Britain with most of the balance to Canada and the United States. (*Herbert H. Steiner*)

MOROCCO

Morocco's output in 1976 increased by 10 percent in real terms. This record growth resulted from a 28 percent increase in agricultural production, substantial hikes in Government investment including three new dams and improvement of four seaports, the construction of three major industrial complexes, and a moderate rise in industrial production and commerce. This growth was purchased at the price of an increased budget deficit, and an unprecedented shortfall in the trade balance which was covered by foreign borrowing; \$1 billion of the \$1.7 billion capital investment came from external sources.

A sharp decline in the revenues from phosphate rock reduced exports by 20 percent to \$1.2 billion while acquisitions of capital goods, an increased oil

bill, and higher grain imports following the poor 1975 harvest combined to boost imports to a record \$2.7 billion.

Agriculture and Trade

Production of the major cereals (durum, bread wheat, barley, and corn) showed a substantial increase as a result of both expanded acreage and higher yields. These yields were not outstanding but better than the ones of the dry year 1975. Nevertheless, not as large an amount of wheat as these results would indicate reached the markets, necessitating imports of 1 million tons. Production in 1977 is expected to be down, requiring imports of 1.2 million tons, over half from the EC, Argentina, and Canada and the rest from the United States.

Citrus production was mediocre in both 1975/76 and 1976/77. A freeze in late January 1976 cut production about 120,000 tons. Several thousand tons of oranges were lost in the Gharb flood of early 1977. Both quantity and quality of Morocco's citrus fruit have declined because of aging orchards. Except for clementines planted in the last 10 years, most of the trees are from 30 to 35 years old, and many are not in the best citrus regions. But citrus is important to Morocco's economy. It is produced on 6,000 farms, directly supports about 50,000 persons, and provides \$125 million in foreign exchange. Concerned about the decline, the Office of Citrus Exports has started renovating 36,000 of the 74,000 hectares of orchards, and it is promoting better cultural methods and more incentives to producers.

Morocco's share of the EC markets declined from 17 percent in 1972-73 to 9 percent in 1975/76. During the same period, exports of oranges to the USSR increased to 210,000 tons, making the USSR the leading outlet.

The 1975/76 olive harvest was a record 312,000 tons; olive oil production was estimated at 38,000 tons. In 1976/77, olives were down to 260,000 tons and oil, 30,000 tons. The export market continued narrow with exports of 11,000 tons, mainly to France and Italy. Morocco exports the higher priced olive oil to earn foreign exchange, but most

of the oils consumed are seed oils. Production of sunflowerseed, cottonseed, and peanut totaled 38,000 tons in 1976. In 1976, Morocco imported 35,000 tons of soybeans and rapeseed and 120,000 tons of seed oils of which the United States supplied 16,222 tons of soybeans and 8,000 tons of seed oils. The reopening of a second mill in 1976 increased Morocco's crushing capacity to 186,000 tons of oilseeds.

Expansion of area and increased yields helped increase sugar production to a record 310,000 tons. Most of this was from sugarbeets, but in 1976 for the first time sugarcane production came onstream at 77,600 tons. The tenth sugar mill came into production during 1976, and six more are planned for the next 3 years, with the aim of eventual self-sufficiency. Morocco produced about 60 percent of its sugar requirements in 1976.

The quantities of long staple cotton that Morocco produces continued to decline, but the future of cotton has brightened a little. The 9,000 tons of unsold lint cotton that accumulated in 1975 were sold in 1976, partly for export to Italy and partly for domestic consumption, and the new textile complex at Oued Zem should soon begin consuming about 2,500 tons annually, eventually reaching 7,000 tons; this would leave little or none for export.

Table 12--U.S. trade with Morocco, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	292.4	540.0	48,316	79,739
Wheat flour.....	22.4	26.4	5,415	6,373
Soybeans.....	--	16.2	7	3,932
Inedible tallow.....	7.7	9.3	2,501	3,510
Other agricultural.....	--	--	16,613	17,198
Total agricultural.....	--	--	72,852	110,752
Total exports.....	--	--	199,500	297,000
Imports:				
Capers.....	0.2	0.3	537	776
Oranges.....	--	1.1	4	654
Olives.....	1.0	1.0	718	596
Coriander.....	0.5	0.9	148	421
Other agricultural.....	--	--	1,086	1,207
Total agricultural.....	--	--	2,493	3,654
Total imports.....	--	--	10,200	16,500

A freeze in January and abnormal cold in April 1976 harmed tomatoes. Exports plummeted because of this and because access to the French market was closed in May.

Through 1976 about 310,000 hectares of land had been distributed under the land reform law. Another 60,000 hectares are up for distribution during 1977 with irrigated land receiving priority. In 1976/77, 65,000 will be fitted out for irrigation,

bringing the total equipped in 1973-77 to 184,900 hectares.

Bread, sugar, and vegetable oil are still sold to consumers below cost but in 1976 the Government spent 42 percent less on subsidizing wheat, 95 percent less on sugar, and 69 percent less on oil. World prices for these commodities were lower, but the amounts of the subsidies also were reduced. (*Herbert H. Steiner*)

MOZAMBIQUE

In 1976 the Government of Mozambique made a beginning in the long slow process of building a new economy from the ruins of the colonial economy disrupted by the mass exodus of the owners, managers, technicians, and skilled workers. As a Portuguese colony, Mozambique had exported cashews, cotton, sugar, copra, sisal, and tea, and it had imported wine, olive oil, dairy products, wheat, and manufactured products, largely for the non-African minority. This minority had owned the commercial farms and small industries, and it had operated the distribution and marketing system while the majority of the 9 million people lived in the rural areas. This traditional subsistence sector was only marginally affected by the demise of the industrial-commercial sector, but exports have plummeted. Moreover, the closure of the border with Rhodesia has ended the lucrative transit traffic, an important source of foreign exchange. Mozambique had a balance-of-payments deficit of \$200 million in 1976, even though still receiving payment in gold of 60 percent of the wages of the approximately 60,000 Mozambicans working in the mines in South Africa.

Grain imports of 200,000 tons, double the previous level, were necessary in 1976. Torrential rains in early 1976 and again in 1977 washed out crops and reduced production.

The immediate aim of the Government of Mozambique is to get the commercial farms back into operation as state farms. The problem is the lack of managers and technicians. The small African farms will be organized into cooperatives. Each family will be allowed to have personal property, including a small plot whose size will be determined by the villagers themselves, but in no case can the size of these plots exceed 1 hectare of rain-fed cropland or one-half hectare of irrigated land. The Government hopes to return to 1973 production levels for both industry and agriculture by 1980. In the meantime, grain imports will be necessary.

One big plus is the Cabora Bassa hydroelectric complex. This is currently the largest dam in Africa and the fourth largest in the world. It is virtually complete, but Mozambique can consume only a small fraction of the electricity the dam can produce. Sales of Cabora Bassa electricity to South Africa began in 1977.

The United States sent 22,800 tons of P.L. 480, Title II wheat and 3,100 tons of corn-soy-milk blend as emergency food aid to Mozambique in 1976. U.S. agricultural imports from Mozambique totaled \$36.8 million; this included cashew nuts valued at \$25.4 million; sugar and molasses, \$8.2 million; and tea, \$1.7 million. (*Herbert H. Steiner*)

NIGERIA

Production of petroleum in Nigeria in 1976 was 2.06 million barrels per day, making it the world's seventh largest petroleum producer. Nigeria is the second largest petroleum supplier to the United States (after Saudi Arabia).

A stringent new Nigerianization program was foretold in a white paper published June 29, 1976. When made into law, this policy will require that certain industries or businesses be 100 percent Nigerian-owned; others, 60 percent; and most of the remainder, 40 percent.

Gross domestic product, for 1976 estimated at \$27.2 billion, may reach \$29.5 billion in 1977.

Although inflation slowed to an annual rate of about 30 percent during the second half of 1976, it remains Nigeria's single most pressing economic problem.

Planning and building of factories and infrastructure go on apace, almost too numerous to mention. Examples include liquified natural gas plants; 1,700 miles of petroleum product pipelines; a third petroleum refinery (at Kaduna); railroad, highway, and bridge construction; hydroelectric plants; steel mills; irrigation systems; school and hospital construction; housing projects; and water and sewerage systems.

Agricultural Production

In a drive to become self-sufficient in sugar, Nigeria is pouring naira into at least three large sugarcane plantations with refineries. One such complex—at Numan in Gongola State—is expected to cost \$400 million and will employ 3,000 persons. Production will start this year and is to reach 200,000 tons by 1982. Nigeria now consumes about 180,000 tons of sugar and produces about 40,000 tons.

The 1976/77 cocoa crop of 160,000 tons dropped drastically below the 1975/76 crop of 217,000 tons. Most trees were apparently in good condition and were sprayed properly, but in almost every case rain fell before the spray had time to do its work. The small crop is said by some observers to be due to 3 factors—too much rain, improper care of many cocoa trees, and old trees.

Nigeria's 1975 commercial peanut crop was practically zero. Total peanut production in 1975 was estimated at 300,000 tons; the 1976 crop was an estimated 550,000 tons.

Agricultural Policy

Prices paid farmers by marketing boards and other Government purchasing agencies as of Jan-

uary 1977, are as follows (converted to U.S. cents per pound):

Commodity	Cents Per Pound
Cocoa	47.9
Copra	14.7
Coffee—arabica	50.8
Coffee-robusta	44.3
Coffee-liberica	41.0
Peanuts	18.4
Palm kernels	11.0
Palm oil (edible)	21.4
Palm oil (inedible)	19.5
Unginned cotton	22.6
Sesameseed	19.4
Soybeans	7.3
Corn	6.9
Garri (cassava)	6.2
Millet	5.8
Rice	13.4
Yams	6.2
Grain sorghum	5.8

On April 1, 1977, Nigeria's regional marketing boards were reorganized on a commodity basis.

Table 13--U.S. trade with Nigeria, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	378.3	598.6	61,759	91,849
Rice.....	5.6	46.4	3,664	25,559
Inedible tallow.....	20.8	27.3	7,008	9,901
Sugar.....	6.3	10.5	4,137	4,379
Other agricultural.....	--	--	20,322	18,942
Total agricultural.....	--	--	96,890	150,630
Total exports.....	--	--	536,300	769,900
Imports:				
Cocoa beans.....	15.5	43.1	21,607	58,794
Sheep and goatskins.....	0.3	0.5	1,762	2,743
Ginger root.....	0.5	0.8	492	676
Coffee.....	--	--	678	587
Other agricultural.....	--	--	6,828	3,172
Total agricultural.....	--	--	31,367	65,972
Total imports.....	--	--	3,281,000	4,930,900

The new boards and their headquarters cities are as follows:

Cocoa Board, Ibadan
Groundnut Board, Kano
Cotton Board, Funtua, Kaduna State
Palm Produce Board, Calabar
Rubber Board, Benin City
Grains Board, Kano
Tuber and Root Crops Board, Makurdi

The marketing boards were first established on a commodity basis but were reorganized on a regional basis some years ago. They now revert to their original form, commodity boards.

Foreign Trade

Exports (agricultural and nonagricultural) for 1976 were valued at an estimated \$10.7 billion

(\$10.1 billion from petroleum), as compared with \$7.9 billion in 1975. Imports (agricultural and non-agricultural) in 1976 were estimated to cost \$8.2 billion, giving a trade surplus of \$2.5 billion.

An incomplete list of farm exports from Nigeria in 1975 totals \$373 million, 4.7 percent of all exports. This is a far cry from 1968, for example, when agricultural exports made up 70 percent of all exports. Of the 1975 farm exports, 88 percent (\$329 million) were cocoa and products. Other farm exports in 1975 included palm kernels, \$29.6 million; sheanuts, \$10.1 million; palm kernel cake, \$2.80 million; and peanut cake, \$910,000.

Selected agricultural imports by Nigeria in 1975 totaled \$102 million. Of this, \$87.9 million were for wheat; \$9.17 million, for tallow; \$3.80 million, for rice; and \$680,000, for corn. (*Snider W. Skinner*)

RWANDA

A severe drought from July 1976 through September followed by excessive rain in October-December, caused loss of about 25 percent of Rwanda's food crop and brought a food crisis. Beans, an important source of protein, were most affected by the bad weather. This created serious nutritional deficiencies for a population whose diet is already too dependent on starchy foods such as cassava, yams, and bananas. International relief efforts have been hampered by the difficulty of

transport into this remote, land-locked country.

Record coffee prices and exports reached a new high in 1976. Rwanda has an ideal climate for tea, exports of which should increase significantly in the next 5 years.

The United States shipped cereals and edible oils valued at \$1.1 million to Rwanda for relief in 1976. U.S. imports were coffee valued at \$51 million; tea, \$1 million; and pyrethrum, \$1.1 million. (*Herbert H. Steiner*)

SENEGAL

Senegal has made a remarkable recovery from the recent drought which seriously affected all of the so-called Sahel countries. The recovery in peanut production luckily coincided with a sharp rise in the world price of peanuts.

Senegal's agricultural sector employs over 70 percent of the population and contributes over 30 percent to the gross domestic product.

Agricultural Production

Total rainfall was normal in Senegal in 1976 but poor distribution during the growing season brought disappointing yields in some important crop areas.

Food crop production in Senegal continues to be affected by large numbers of insects, birds, and rodents. A Paris magazine concerned with Africa (*Marches Tropicaux*) estimates that there are 12,000 rats per acre in the Fleuve region of north-

ern Senegal. Rats have been known to destroy 90 percent of a millet, corn, or rice field.

Agricultural Policy

Producer prices in 1976, converted to U.S. cents per pound, were as follows:

	<i>Cents per pound</i>
Peanuts	7.8
Cotton (unginned)	9.3
Rice (paddy)	7.8
Millet	6.6
Corn	6.6
Cowpeas	5.7
Tobacco, first grade	23.6
Tobacco, second grade	18.0
Tobacco, third grade	12.2

Foreign Trade

Farm exports earned about half Senegal's foreign exchange in 1976. Main exports were 250,000 tons of peanut oil, 330,000 tons of peanut cake and meal, 250,000 tons of shelled peanuts, and 17,000

tons of hand-picked selected (HPS) peanuts. The oil and cake went mostly to France and other EC countries.

Senegal's main 1976 farm import was 105,000 tons of wheat from France. (*Snider W. Skinner*)

SIERRA LEONE

Sierra Leone's agricultural sector is gradually assuming more importance in the country's economy, as the diamond mining industry declines and bauxite mining shows only modest expansion.

Agricultural Production

Rice growing dominates the domestic food crop picture in Sierra Leone, and it is grown on 62 percent of the cultivated land. Year by year, the Government strives for self-sufficiency in rice. In 1976, this goal was almost accomplished, due in part to high producer prices and helped by some leftover imported rice. However, additional imports will be required in 1977 to supply Sierra Leone's domestic needs.

Agricultural Policy

Producer prices of principal export crops in early 1977, converted to U.S. cents per pound, were as follows:

<i>Crops</i>	<i>Cents per pound</i>
Palm kernels	4.6
Coffee	61.2
Cocoa	45.9
Ginger	38.25

The 1977 producer price for coffee was 188 percent greater than in 1975 and for cocoa, 80 percent. The ginger price was 50 percent greater than in 1975 and palm kernels were 18 percent cheaper.

Several international organizations and nations have offered Sierra Leone economic and technical assistance in agricultural development and infrastructure. These include the United Nations Development Program, the European Community, the African Development Bank, the West Africa Rice Development Association, the Netherlands, the United States, West Germany, and the United Kingdom.

Table 14--U.S. trade with Senegal, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Inedible tallow.....	4.6	3.9	1,603	1,481
Cornmeal.....	1.2	3.2	235	629
Grain sorghum.....	0.6	3.9	98	488
Corn-soy-milk blend.....	0.8	1.0	311	441
Other agricultural.....	--	--	2,973	1,822
Total agricultural.....	--	--	5,220	4,861
Total exports.....	--	--	33,100	41,300
Imports:				
Flavoring extracts.....	0.1	0	1,030	0
Other agricultural.....	--	--	0	0
Total agricultural.....	--	--	1,030	0
Total imports.....	--	--	2,100	3,800

Foreign Trade

Major export crops are palm kernels, coffee, and cocoa. Quantities of these exports are relatively small but are gradually increasing.

In 1976, the chief agricultural imports were rice,

sugar, and wheat. Total value of all farm commodities imported was \$36.6 million, or 29 percent of total imports. About 30,000 tons of wheat are imported each year, all from the United States. (Snider W. Skinner)

SOUTH AFRICA

South Africa's combination of a diversified mining sector and a diversified agriculture makes its economy able to absorb the widely fluctuating prices of world export markets.

In the third quarter of 1976, GDP rose slightly in real terms, following two quarters of decline. This improvement occurs despite the drop in gold prices in 1976 compared with 1975. The improvement is due to strength in the nongold mining and agricultural sectors. Real GDP may have shown a small increase during 1976.

Large investments in transportation infrastructure are beginning to pay off. The South African Railroad reported in March 1977 that the new Richards Bay facilities (railroad and harbor) had increased coal exports by 200 percent, so far. And by the end of March 1977, the new facility will have earned about \$115 million in foreign exchange.

Agricultural Production

In 1976, for the third year in succession, South Africa experienced exceptionally high amounts of summer rainfall. The extremely heavy rainfall in early 1976 adversely affected crops in certain field-cropping regions. But the production of fodder crops and the condition of natural grazing was excellent. Adequate reserves of water for irrigation are also available.

The total volume of agricultural production declined slightly in 1976. This is the third successive year of decline after the record high agricultural year of 1974.

Corn crop marketings dropped to 7.3 million tons, only about 66 percent of 1974's record crop. The sorghum crop was also down sharply, to 290,000 tons, as was the peanut crop at 130,000 tons, in shell. However, the wheat crop hit a record of slightly over 2 million tons and sugar (raw) output was also up to 2 million tons. Horticultural production showed a good 9-percent increase over 1975 and livestock production was up over the low levels of 1975.

Total milk production increased about 6 percent during 1976. Eleven percent more cows were milked than the previous year, reflecting favorable weather conditions and the relatively good producer prices. The 12 percent increase in receipts of

milk for processing led to a 36 percent increase in cheese production and 19 percent in nonfat dry milk production.

Foreign Trade

South Africa's very diversified agriculture gives it strength in the generation of export earnings. Despite a poor corn year in 1976, and low world sugar prices, South African agricultural exports, at an estimated \$1.3 billion, were down only about 3 percent in value from the record in 1975. While world sugar prices are much below the highs of late 1974, wool prices in late 1976 moved above their previous highs of late 1973. Final figures may show that fruit exports—preserved fruit and jams, deciduous fruits, and citrus fruits—will have been one of the leading agricultural exports.

In 1975, agricultural exports made up about 30 percent of South Africa's total exports (excluding gold).

Policy

Some maladjustments showed up in South Africa's highly price-tuned agricultural economy in 1976. Wheat was in surplus; exports were apparently necessary and a loss was incurred by the wheat stabilization fund. Also a dairy surplus situation came about in 1976 because of good weather and relatively favorable prices. A promotional campaign by the Dairy Board under which the retail price for cheddar cheese was about \$1.28 a pound has apparently not resolved the surplus situation. For the 1975/76 season (July-June), average prices paid farmers for milk for fresh consumption or for cheese increased 20 percent. Dairy products come under the single-channel, fixed price system, just as corn and wheat. Consumption of these commodities is subsidized by the Government. Fresh milk comes under the single-channel pool system.

The supply of oilseeds was insufficient. Total production was only 57 percent that of 1974. A related result was a shortage of animal protein feed ingredients, and imports became necessary. Five thousand tons of nonfat dry milk were sold to feed manufacturers in early 1977. Oilseed prices are regulated under the single-channel pool system, where farmers receive a fixed advance price, and at

the end of the season the Board makes final payments based on the proceeds of the "pool." Related to the oilseed meal shortage is the decline in South Africa's fishmeal production. The pricing problem involved was that the local price of fishmeal was controlled at a low level, thus acting to discourage the supplying of the local market.

Prices for oilseeds have been greater to provide increased incentives to farmers to produce these crops. Soybeans are being marketed under the pool system rather than the previous floor price scheme. The Board pays an initial price of about \$182 a ton for the best grades, and it makes a final payment based on the proceeds. In trying to overcome the local industry's reluctance to use soybeans, the Board requires that crushers buy a minimum amount of soybeans based on the amount of other oilseeds purchased.

Prices

Producer prices rose at a faster rate in 1976 than in the previous year. The preliminary combined price index showed a 12 percent increase. Mohair prices were about 70 percent higher; wool, 36 percent; oilseeds about 21 percent; and fruit, 15 percent. The net farm income of farmers declined about 10 percent in 1976.

The price index of farming requisites showed a 15 percent increase on July 1, 1976 compared to a year earlier. Tractors increased 24 percent in price. Fuel prices jumped by 33 percent. But fertilizer prices dropped about 2 percent. No significant agricultural input shortages were noted in 1976.

From November 1975 to November 1976, the consumer price index increased 10.4 percent while food prices rose 8.3 percent. In 1974 about one-third of private consumption expenditures were devoted to purchase of food, beverages, and tobacco.

On October 1, 1976, wheat producer prices were increased 15 percent to \$141.45 a ton for best grades in bulk. To reduce the Government bread subsidy put at about \$95.5 million during 1975/76, retail bread prices were increased on September 1, 1976. White bread prices were increased 25 percent to \$0.23 for a 1.98-pound loaf while brown bread prices were raised 23 percent to about 18.4 cents per loaf. Consumption of wheat during the 1976/77 year is estimated at 1.7 million tons. With production at slightly over 2 million tons, a theoretical surplus for export exceeds 300,000 tons.

Outlook

Weather reports in early 1977 have generally been good. A good corn crop of 10 million tons has

Table 15--U.S. trade with South Africa, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Rice.....	83.6	79.4	35,826	31,335
Tallow, inedible.....	3.7	20.6	1,280	7,529
Cotton.....	.7	2.0	875	3,015
Oilseed cake and meal.....	2.7	6.4	2,087	1,429
Other agricultural.....	--	--	19,441	18,685
Total agricultural.....	--	--	59,509	61,993
Total exports.....	--	--	1,302,400	1,347,800
Imports:				
Sugar.....	129.9	86.9	56,063	25,315
Apple juice.....	--	--	1,998	4,568
Apples.....	0	9.7	0	2,083
Ostrich feathers.....	--	--	1,121	1,329
Other agricultural.....	--	--	9,088	10,002
Total agricultural.....	--	--	68,270	43,297
Total imports.....	--	--	840,000	925,800

been predicted. This would mean corn exports of more than 3 million tons during the 1977/78 marketing year.

A record 2 million-ton sugar crop is estimated. With local consumption apparently reduced by a consumer price increase in 1976, more will likely be available for export. But export prices may be lower than during 1976. A good export year is expected for the fresh and canned fruit industries.

Sunflower production could reach a record 400,000 tons in 1977. Plantings for 1976/77 are up to 388,800 hectares, or 35 percent above last year. It is likely that farmers have estimated higher returns from growing sunflowers than from corn. The cost of producing corn is also higher than for sunflowers.

SUDAN

In Sudan, 1976 was a mixed year for the economy. Inflation continued at around 20 percent annually, with many wages limited if not frozen. Central bank restraints on imports of consumer goods resulted in shortages of many items, prominent among which are coffee, tea, and petroleum products.

While investment levels in infrastructure and in other sectors probably were maintained in 1976, the production of wheat, an important commodity of the agricultural sector and one in which Sudan hopes to soon become self-sufficient, dropped below the 1975 level. Conversely, there has been rapid growth in the nonirrigated production, and good news for Sudan's foreign trade front. A slight reduction of long staple cotton area did not prevent production gains and a sustained high world price for cotton allowed earnings to top those of 1975.

Agricultural Production

Total agricultural production is estimated to have increased less than 2 percent over 1975. Most crops did as well, or better than in the previous year. Total grain output is estimated to have been above the 1975 level; coarse grains, used in Sudan as staples, inched up, but wheat production declined. It declined despite a policy shift several seasons back to increase the area planted at the expense of cotton. Nevertheless, for the 1976 crop, there appears to have been little increase in area and yields dropped off because of pest damage.

Sesame, one of Sudan's important export crops, appears to have yielded 35,000 tons. Peanuts, which in 1975 suffered a drop in production, improved in 1976 by 17 percent above the 1975 output but were about 2 percent below the record 1974 crop.

Soybean plantings, estimated at 15,400 hectares, are also considerably higher than last year and production could surpass a record of 25,000 tons.

With an expected good corn harvest and continued strength in world market wool prices, South African agricultural exports in 1977 could exceed the 1976 level.

The country has in the past enjoyed a net inflow of foreign, long-term capital to cover deficits on the current account of the balance of payments. In 1976, however, political constraints began seriously to affect the attitudes of foreign investors. The inflow of direct long-term capital in the private sector diminished, and the large current account deficit had to be financed by short-term borrowings, mainly by the Government and by public corporations. (*Lawrence A. Witucki*)

A lack of insecticides, infestations of rats, labor shortages, and poor management are reasons given for continuing low yields, but of these, rats are probably the most serious, as they appear to be a threat to all food crops.

Cotton, Sudan's big earner of foreign exchange with a harvest of about 700,000 bales, overcame cooler than normal weather, a slightly reduced area, and labor difficulties, to recover from the precipitous drop to less than 500,000 bales in 1975. Cotton, which is planted in the early summer and harvested from late fall until the next February, had a particularly active early marketing season. By mid-March 1977, all carryover stocks and much of the new 1976 crop had been sold.

Foreign Trade

Sudan's balance of payment problems are partially due to expenses of short-term financing for projects that are not yet at the payoff stage. Actually, the largest percentage of Sudan's imports are investment goods, much of which are used for development projects. As these projects come into operation, Sudan's economic level should greatly improve. For example, textile projects should soon alleviate the need for textile imports.

Over 17 percent of Sudan's imports in 1975 were agricultural items. Out of a list of 80 some agricultural imports, 93 percent of the value was for sugar, wheat, tea, coffee, milk products, and tobacco. All of these are items for which the Government hopes output will considerably increase. Sugar and wheat will probably become net export items.

In 1975 the United States supplied 95 percent of Sudan's imports of wheat, and this item alone accounted for some 22 percent of the total U.S.

exports to Sudan. The United States imported from Sudan less than 10 percent of what it exported there. U.S. agricultural imports from Sudan were principally cotton, hides and skins, and drug bearing material.

Over 95 percent of the value of Sudan's total exports was in agricultural items, dominated by cotton, 45 percent; peanuts, 23 percent; sesame seed, 9 percent; and gum arabic, 5 percent.

Outlook

The Five-Year Plan of Economic and Social Development that ended in 1975 launched Sudan on the development road. The new plan, which begins in July 1977, will accelerate the development activity. Old schemes, such as the Gezira, are being reoriented, projects under construction

will receive a new mandate, and the introduction of new projects is being effected as rapidly as possible with multinational aid bolstered by new funding from Arab development funds. This massive effort is applied to a vast, almost untouched, agricultural resource.

Two projects well underway are the impressive new Rahad irrigation scheme, scheduled to have a sizable portion of its land planted in July of 1977, and a massive-investment sugar project. Other projects include a pipeline from Port Sudan to Khartoum, the all-weather road between the Capital and Port Sudan, livestock projects, mechanized dry-land projects, the Jonglei canal projects and others, with payoff years ahead. This activity and current plans make the outlook bright when compared with other non-oil exporting, less developed countries of Africa. (*H. Charles Treacle*)

Table 16--U.S. trade with Sudan, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	134.5	173.9	22,205	23,569
Inedible tallow.....	0.7	1.8	303	934
Flavoring sirup.....	--	--	173	504
Nonfat dry milk.....	3.9	--	5,150	104
Other agricultural.....	--	--	2,964	579
Total agricultural.....	--	--	30,795	25,690
Total exports.....	--	--	102,600	105,700
Imports:				
Cotton.....	0.6	9.4	1,425	13,511
Hides and skins.....	0.2	0.4	720	1,511
Drug bearing material.....	0.2	0.2	312	213
Other agricultural.....	--	--	11	25
Total agricultural.....	--	--	2,468	15,260
Total imports.....	--	--	8,100	24,200

TANZANIA

Tanzania's major exports—coffee, tea, and cotton—are selling at high prices and export earnings hit record levels in 1976.

On the other hand, grains that Tanzania still finds it necessary to import were selling in late

1976 at prices considerably below levels reached in 1974.

High coffee prices, severe restrictions on imports, and large injections of external assistance resulted in a reduced balance-of-trade deficit and a surplus in the balance of payments in 1976.

Agricultural Production

In 1976 agricultural production of both food and cash crops recovered to more normal levels, compared with the low point of 1974. For a number of years, the growth in agricultural production has not matched the population growth rate, estimated at 2.8 percent per year.

Increases in corn, tobacco, cotton, coffee, tea, and sugar production more than offset declines in output of wheat, cashew nuts, sisal, milk, and meat.

Corn production was above the level of recent years. Favorable rains were a major factor. Wheat production continued at the low levels of recent years. With increasing Canadian assistance, it is hoped that future production will be increased.

Total rice (paddy) production was up slightly from 1975. It is estimated that about 50 percent of the paddy rice crop is marketed. Of the amount marketed, the Government parastate organization, the National Milling Corporation (NMC), is able to purchase about 20 percent. The rest is sold illegally. In 1976, the NMC paid 12 cents per kilogram of paddy, while by selling through private chan-

nels, a producer received much more. The NMC is becoming a residual buyer. Demand increased in 1976 when the official retail price of rice was reduced from 48 to 42 cents per kilogram. Old stocks are expected to be depleted in early 1977. A P.L. 480 agreement of March 1977 calls for delivery of about 20,000 tons of U.S. rice.

Cotton production recovered sharply from the low level in 1975. Relatively low prices (24 cents per kg. of AR type) and affects of the Ujamma village programs have discouraged many producers.

Cashew nut production is mainly in the hands of smallholders in the coastal belt. Production, in the shell, was down to 80,000 tons in 1976, partly due to low rainfall in some areas during the flowering stage in 1975. Some of the production decline is attributed to the Ujamma program which moved producers away from their trees. Tanzania is building processing plants but the majority of the crop is still exported in the shell.

Tea is one of the bright spots. Production is trending upward as new plantings come into maturity. In 1976 the crop reached a record 14,100 tons of processed tea. All smallholders are paid a uniform price.

Table 17--U.S. trade with Tanzania, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	<u>1,000 metric tons</u>		<u>1,000 dollars</u>	
Exports:				
Sorghum meal and/or inedible				
cornmeal.....	5.4	30.0	1,317	6,991
Corn.....	175.5	42.4	27,281	5,437
Peanut oil.....	--	1.8	151	1,975
Corn-soy-milk blend.....	5.2	4.1	1,702	1,945
Other agricultural.....	--	--	12,711	2,770
Total agricultural.....	--	--	43,162	19,118
Total exports.....	--	--	66,100	35,700
Imports:				
Coffee.....	16.6	13.6	17,897	31,023
Cashew nuts.....	.6	1.5	1,055	2,758
Pyrethrum.....	--	--	2,599	1,571
Sisal.....	.5	4.1	452	1,043
Other agricultural.....	--	--	1,362	2,316
Total agricultural.....	--	--	23,365	38,711
Total imports.....	--	--	28,900	46,800

In sisal production, it is expected that the low point of 115,000 tons of fiber was reached in 1976. Drought in some areas played a part. New plantings, mainly on the Tanzania Sisal Authority estates, will begin maturing in 1977.

Sugar production reached a high point of 115,000 tons in 1976, roughly equivalent to the current level of consumption. Production should increase further in 1977 as the new Kilombero II plant will be more fully utilized.

Policy

In general, incentive pricing for Tanzanian producers is weak. The role of individual initiative seems to be minimized or ignored by policymakers. The emphasis, rather, seems to be on keeping economic activity under state control. The goal of social and income equality has been placed above that of economic growth and output.

Outlook

Agriculture is expected to show some improvement over performance in 1976. Concessional grain imports are expected to ease grain deficits likely to occur before the 1977 harvests are completed.

The producer price for paddy will be 14.4 cents per kilogram. But this increase from 12 cents may not be sufficient to expand production, or sales to the NMC. For corn, heavy rains in early 1977 over much of the major corn areas should boost production at least 10 percent above the 1976 level. With better rains, and as the farmers begin to tend their fields and trees again, cashew production could reach 100,000 tons. For coffee, a drop from the high level of 1976 marketings is expected. Dry weather in major coffee areas in 1976 and disease are partly responsible for the expected decline. (*Lawrence A. Witucki*)

TUNISIA

Growth of real GDP was only 6 percent in 1976, compared with 9.9 percent in 1975. Construction, public works, and manufacturing advanced about 20 percent. Production of both petroleum and phosphate rock was lower, but both of these had recovered some of their losses by the end of 1976.

Agriculture and Trade

Rains just before harvest in 1976 damaged what would have been an excellent wheat crop and caused a small decrease in production, despite a 15-percent increase in plantings. The 1975/76 olive harvest reached an alltime high of 158,000 tons, but the 1976/77 results were down 20 percent. The 1975/76 citrus crop also was the best ever. The 1976 wine crop was down, but tomato production increased slightly. Less alfa grass was harvested because of lower export demand for paper pulp. Sugarbeet production reached a new record because irrigated plantings increased from 2,150 to 2,800 hectares as part of a plan to enlarge the beet area to 12,000 hectares by 1981.

The producer prices set by the Government for cereals remained the same as in 1975, \$151 per ton for durum, \$138 for bread wheat, and \$104 for barley. However, the price of bread for the consumer is subsidized and held at a lower level than these prices would normally require.

Tunisia exported larger quantities of olive oil, citrus fruit, dates, and almonds in 1976 than in 1975. Olive oil exports increased from 42,300 tons in 1975 to 70,000 in 1976 and citrus went from 23,400 to 30,000 tons. Nevertheless, the large amount of olive oil was sold only at the expense of

substantial price concessions; the price of olive oil fell from \$1,725 to \$1,080 per ton. Even at the lower price, Tunisia ended 1976 with unsold stocks of 100,000 tons of olive oil. This required additional financing and investment in new storage tanks in Sejoumi, Sousse, and Sfax. Exports of wine decreased from 891,000 to 800,000 hectoliters. This was shipped mainly to France, Africa south of the Sahara, West Germany, Sweden, and Poland.

Tunisia imported less wheat, much smaller quantities of vegetable oil, and fewer live animals in 1976. The prices of imported wheat and sugar declined. Despite this, Tunisia's trade deficit increased because of the sharp declines in the prices of two important exports, olive oil and phosphate rock. Tunisia also required increasing amounts of industrial goods and most of these cost more in 1976.

The standard of living of both urban and rural people has improved substantially in the last 10 years; the segment of the population which spent less than \$120 per capita per year decreased to 16 percent in 1975 from 27 percent in 1966. A minimum wage for agricultural workers came into force during the 1973-76 plan. In 1976, 45,000 new jobs were created, and the Fifth Plan (1977-81) calls for full employment by 1981. The plan also expects the end of foreign concessional assistance and net self-sufficiency in agriculture. This means that by 1981 agricultural exports should cover the cost of agricultural imports.

Tunisia required less U.S. wheat in 1976 because of the good 1975 harvest. Over the years Tunisia found it advantageous to import U.S. soybean oil

for blending with Tunisian olive oil for domestic consumption because Tunisia could export more olive oil. But with the glut of olive oil in 1976, Tunisia took only 178 tons of soybean oil and 1,950 tons of peanut oil from the United States.

Outlook

Because of a drought beginning early in January 1977, Tunisia's 1977 cereal harvest probably

will be well below normal. If so, Tunisia may require as much as 600,000 tons of wheat imports compared with the 300,000 tons imported in 1976.

Even with a much smaller olive oil harvest in the 1976/77 season Tunisia will likely have 150,000 tons to export. This is far above the needs of Tunisia's traditional customers, France and Italy. Unless Tunisia develops new markets for its olive oil it will not be a market for U.S. seed oils as it has been in the past. (*Herbert H. Steiner*)

Table 18--U.S. trade with Tunisia, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	<u>1,000 metric tons</u>		<u>1,000 dollars</u>	
Exports:				
Wheat.....	182.3	61.9	26,984	7,808
Corn.....	41.8	42.6	5,050	4,859
Peanut oil.....	0	1.8	0	1,777
Wheat flour.....	72.1	63.0	1,686	1,214
Other agricultural.....	--	--	9,167	2,202
Total agricultural.....	--	--	42,887	17,860
Total exports.....	--	--	90,000	82,400
Imports:				
Olive oil.....	0.7	0.7	1,272	883
Rosemary oil.....	--	0.1	112	278
Marjoram.....	--	--	0	16
Other agricultural.....	--	--	18	21
Total agricultural.....	--	--	1,402	1,198
Total imports.....	--	--	26,000	56,300

ZAIRE

Zaire's gross domestic product showed no growth in 1976 for the second year in a row. Low copper prices dried up Zaire's chief source of foreign exchange, made it difficult to pay for imports, and seriously impaired Zaire's ability to service the \$3 billion foreign debt. The International Monetary Fund provided \$150 million in emergency credit in March 1976 after Zaire agreed to take austerity measures which included a limit to bank lending and other controls of the money supply. At the same time, the zaire (money unit) was devalued 42 percent and tied to special drawing rights instead of the dollar. The inflation rate for 1976 was 84 percent.

Two projects to strengthen Zaire's position in the world copper market are: a power line (under construction) from the Inga Dam on the Congo River will carry low cost electricity to the copper mines and refineries in Shaba; the other, an extension of the railway system (under study), will make it possible to export Shaba copper through the port of Banana at the mouth of the Congo River, thus ending Zaire's dependence on the Benguela Railroad through Angola.

Agriculture and Trade

Production of the commercial crops, palm oil, tea, cotton, rubber, and cocoa, continued the

declining trend initiated in 1972. Small gains were made in the production of corn, rice, cassava, and meat, but the commercial marketings of these products declined. The rural people had little incentive to produce, except for home consumption, because it was difficult or at times impossible to ship the goods to market. Cotton was such a case. Much of the cotton deteriorated in poor storage facilities because bad roads and lack of trucks and fuel made it difficult to move it to the gins. And even the gins were not functioning. During July 1976, 50 of the 59 gins in Kasai Oriental and Shaba were closed because of lack of fuel or because parts could not be found to repair the machinery.

The transfer of expatriate businesses and plantations to Zairians in 1973 did away with the services of Asian, Greek, and Portuguese managers and traders. The new owners of the plantations often did not have the know-how or the capital to continue crop production at the former level, and the demise of the traders disrupted the trading network supplying goods to the rural areas. The production inputs became scarcer, and on some palm plantations, there was less incentive to climb the palms to harvest the fruit when the rural stores had little to sell. The Government of Zaire expected to undo the damage in 1976 by offering a 60-per-

cent interest to the original owners of businesses who would return to take over management.

Measures are being taken to increase production and improve the rural transportation and marketing systems. The private palm producing companies planned 100,000 hectares of replantings and plantation extensions, perhaps with World Bank financing. The textile mills have become involved in the production, collection, and ginning of seed cotton to assure a steady cotton supply. Several large-scale corn production projects are in the early stages. Rice production has increased, and new sugarcane plantations are being planned. Almost every crop has possibilities for increased production, but expansion will come slowly.

Coffee was the only major export crop which increased its production in 1976 after a 1973-74 decline. The main stimulus was the high price, but allowing private traders to purchase and export coffee also helped.

Zaire's agricultural exports increased more than 50 percent (total value about \$150 million) in 1976. Private buyers searching for coffee and paying more than the official price uncovered previously unreported stocks. This raised coffee exports to the alltime high of \$112 million for 95,000 tons (81,000

Table 19--U.S. trade with Zaire, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	89.9	120.3	16,416	19,933
Rice.....	--	56.2	76	13,747
Cotton.....	0	2.6	0	4,868
Tobacco.....	0	0.5	0	1,648
Other agricultural.....	--	--	1,671	1,146
Total agricultural.....	--	--	18,163	41,342
Total exports.....	--	--	187,900	99,400
Imports:				
Coffee.....	17.9	12.9	20,360	29,764
Rubber.....	2.5	2.6	1,132	1,777
Enzymes.....	--	--	1,257	1,196
Tea.....	0.4	0.4	465	381
Other agricultural.....	--	--	1,360	314
Total agricultural.....	--	--	24,574	33,432
Total imports.....	--	--	66,900	189,500

tons was the previous high). However, exports of palm oil, palm kernel oil, and palm kernel cake, were lower in 1976 in both value and quantity.

Agricultural imports were mainly wheat, corn, rice, meat, sugar, and tobacco. In 1976 Zaire imported 121,000 tons of U.S. hard winter wheat, all milled at the Midema Mill at the port of Matadi. Bread is becoming increasingly important in the diet of the urban population; thus wheat imports

are expected to reach 144,000 tons in 1977. The United States also supplied rice, tobacco, and cotton, all on a concessional basis. Zaire was normally a cotton exporter, but production dropped off so much that the United States sent P.L. 480 cotton to keep Zaire's textile factories from shutting down. The 1977 P.L. 480 program for Zaire is for 4,000 tons of rice, 5,000 tons of corn, and 3,000 tons of tobacco. (*Herbert H. Steiner*)

ZAMBIA

Zambia's GDP rose slightly during 1976—2.4 percent in real terms. This is below the country's population growth rate which is estimated at roughly 3 percent per year. The trade balance was positive, compared with the negative one of 1975, but the balance of payments remained negative. The kwacha was devalued 20 percent in July.

Agricultural Production

Zambia's agricultural sector did well in 1976. The increase in agricultural GDP is estimated at 4.4 percent in real terms.

A 26 percent increase in producer price for corn, although announced late, had the desired effect. Commercial farmers reduced their acreage but small farmers, who usually wait for the rains to soften the ground for plowing before planting, increased their acreage. Purchases of corn by the National Agricultural Marketing Board increased some 17 percent over 1975. The preliminary estimate is 675,000 tons purchased.

Irrigated wheat production reached 3,800 tons during 1976. Wheat prices were not increased. They remained at about \$222 per ton.

The flue-cured tobacco area decreased during 1976 by 10 percent. This was attributed to the guaranteed producer price being announced nearly 2 months after the beginning of the planting season. But yields were better than in 1975, resulting in marketed production of 6,300 tons, about 3 percent below 1975.

Seed cotton production increased to about 3,900 tons, including about 1,300 tons of lint cotton.

Sunflowerseed production is estimated at 12,000 tons compared with 11,000 in 1975, but most of the production went into storage because of the lack of adequate processing facilities. The same is true for the 2,000 tons of soybeans produced.

Peanut marketings are estimated at 36,000 tons, not much change from recent years. Most were the confectionary type. Now the Government encourages the growing of red varieties for oil crushing.

Sugar production increased 6 percent to 90,000 tons, and is equivalent to domestic consumption.

Foreign Trade

Wheat and vegetable oils are important agricultural imports. During 1976, 5,000 tons of soybean oil were imported from the United States under P.L. 480, Title I. Fertilizer imports for the 1976/77 growing season are estimated at 150,000 tons. About 10,000 tons are produced in Zambia. Imported fertilizer is subsidized at about \$171 per ton.

It is believed that Zambia's agricultural imports declined markedly in 1976. During the first 6 months, food imports were down 55 percent compared with 1975. A complete ban was placed on beef imports.

Small amounts of corn were exported to Tanzania and Mozambique during 1976.

Policy

The Government, through the National Agricultural Marketing Board, desires to initiate a 180,000-ton corn reserve. Storage facilities will have to be increased.

The Tobacco Board of Zambia will no longer offer the flue-cured crop on auction. Rather the crop will be graded by a firm under contract. Then the tobacco will be offered under tender. The producer will receive a price dependent on the grade. Price ranges have been set to average 71¼ cents per pound for the entire crop. The entire crop is to be processed by the TBZ.

The Third National Development Plan, due to begin in January 1977, was postponed one year.

Exchange controls have been eased to encourage private investment including that of expatriate farmers.

Outlook

Parts of the country were having low rainfall, according to reports in early 1977. Corn production in 1977 will likely be reduced from the relatively high level of 1976. This, together with expected reductions in the tobacco crop, is expected to result in a decline of the agricultural GDP during 1977.

Grade A seed cotton prices were increased 34.5 percent for machine-picked to \$0.49 per kilogram for the 1976/77 growing season. Seed cotton production could increase to 8,500 tons in 1977.

Soybean production is expected to increase, due to the nearly 30-percent price increase to \$23.61 per 100 kilograms and due to substitution of soybeans for some of the drought-killed corn, but the processing bottleneck remains.

With a 31-percent guaranteed price increase to

\$37.50 per 100 kg. for peanuts, marketings could reach 40,000 to 45,000 tons in 1977.

Sugar production may reach 100,000 tons in 1977. Major expansion of the Nakambala complex is underway. Plans are also being made for a second sugar mill, probably in Luapula Province.

Except for foreign assistance, investments in the agricultural sector remain heavily dependent on the income generated from copper exports. The World Bank forecasts 1977 copper prices to be higher than during 1976. (*Lawrence A. Witucki*)

Table 20--U.S. trade with Zambia, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Soybean oil.....	0	2.9	0	1,600
Liquid beverage base.....	--	--	2	161
Corn.....	0.3	0.4	32	51
Vegetable seed.....	0	--	0	23
Other agricultural.....	--	--	322	94
Total agricultural.....	--	--	356	1,929
Total exports.....	--	--	85,800	48,400
Imports:				
Enzymes.....	0	--	0	60
Tobacco.....	--	--	10	13
Hides and skins.....	--	--	2	3
Hoofs and horns.....	--	--	1	2
Other agricultural.....	--	--	1	0
Total agricultural.....	--	--	14	78
Total imports.....	--	--	200	161,000

WEST ASIA

IRAN

Iran's agricultural production continued to increase in 1976 accounting for approximately 10 percent of GNP. The 1976/77 GNP is estimated to have grown by 24 percent at current prices and 11.5 percent in constant prices. The per capita GNP is estimated at \$1,922, up 21 percent from 1975/76.

Iran's rural population continues to decrease; it was estimated at 53 percent of total population in 1976.

In 1976/77, Iran's agricultural imports were a record \$2.4 billion, with the U.S. share 25 percent, compared with 30 percent in the previous year. Iran's agricultural exports were \$307 million in 1976/77, the same as in the previous year.

Agricultural Production

Iran's farm output in 1976 increased nearly 9 percent to an index of 189 (1961-65=100), a record high.

Wheat

Wheat, the major crop, accounts for some 60 percent of the total cropped acreage. The 1976 crop is estimated at a record 5.5 million tons, from 5 million hectares. Not only were moisture and growing conditions better than average, but harvesting and marketing of the crop were aided by good weather. About 20 percent of the wheat area was planted with improved varieties in 1976, 25 percent of the area received fertilizer, and 39 percent was grown on irrigated land. Major factors in future expansion of wheat area in Iran is the increased cost of labor and the continued migration of farm labor to urban areas. Between 50 and 65 percent of the wheat and barley area is still harvested by hand.

It is estimated that Iran's per capita consumption of wheat is around 160 kilograms per annum—one of the highest in the world. Imports of wheat by Iran are estimated at near 1 million tons in 1976/77, with most coming from the United States.

Other Grains

Production of feed grains was estimated at 1.17 million tons (barley, corn, and sorghum) in 1976, about 6 percent higher than in 1975. Import requirements were estimated at around 600,000 tons, approximately 20 percent higher than in the prior year. Most feed grain imports are to meet requirements of Iran's growing poultry and dairy industries.

The production of milled rice is put at 850,000 tons, up 6 percent from 1975. About 15 percent of the some 365,000 hectares of rice is planted to improved seed with some 50 percent of the total fertilized. Despite a good crop, rice imports are expected to be near a record 500,000 tons in 1976/77 because of rising consumer demand.

Sugar

Iran's sugar consumption continues to increase 10 percent per year. This is nearly twice the production growth rate, with the consequent annual import of nearly 500,000 tons. Direct human consumption is estimated at about 30 kilos per capita. Of the 675,000 tons of sugar produced in 1976, almost 89 percent came from beets. Sugarbeet area and production continue to expand at about 5 percent per annum, although it is still a small-farmer enterprise. Currently, operations on some 75,000 hectares out of 200,000 planted are fully mechanized. Only about 10,000 hectares are planted to monogerm seed.

All sugarcane production is on the Haft-Tapeh project in Khuzestan. A second, much larger, sugarcane operation at Karoon will begin to produce significantly in 1978; at full production, this operation should add another 250,000 tons of sugar.

Poultry

The poultry industry is expanding at a rate between 15 and 20 percent a year. Production of poultry meat for 1976/77 is estimated at 135,000 tons, up 17 percent over the previous year. Per capita consumption for the same period is estimated to have increased 37.5 percent to 5.5 kilos. Egg production was estimated at 130,000 tons, up 18 percent over the past year, but per capita consumption was estimated at 78 eggs, up 26 percent.

There are in Iran 3 or 4 individual broiler operations producing at a rate of 5 million birds per year. It is expected that several multimillion-bird broiler units will be completed in 1977. In some areas, however, completion of poultry complexes has been delayed by shortages of cement and building materials.

Fats and Oils

Despite Government efforts to expand oilseed production, particularly of soybeans, the total output has not increased. Domestic animals' grease production appears to satisfy about one-half of Iran's requirement and annual imports of tallow are around 20,000 tons. Production of oilseeds in 1976/77 reached 469,000 tons. Soybeans have achieved a significant place among oilseed crops in just 3 years. Production in 1976 was estimated at 98,000 tons, 40 percent up from the previous year.

Cottonseed, still the largest oilseed crop produced in Iran, has tended downward in recent years because of competition from other crops. While it is doubtful that cotton area will increase in the future, production is expected to increase through better yields.

Agricultural Policy

Iran is characterized by a rapidly growing economy and an increasing need to meet domestic food demand through imports. Agricultural policy is to increase production to achieve self-sufficiency. Guaranteed support prices are used. In 1976/77, the guaranteed price for wheat (zero foreign matter) was \$150 per ton. The farmer received another \$12 per ton if he had established storage facilities and \$11 for certain transportation and marketing costs.

The Government's Impact Program covers wheat, barley, corn, sorghum, and rice farmers, assisting them by providing: improved seed, fertilizer at a 50 percent discount, pest control, technical assistance in cultural practices (including irrigation), and long-term loans with low interest.

Government policy is very much a determinant in the poultry sector. Producers are dependent on

feed produced from subsidized grain and soybean meal as well as prices set for eggs and poultry meat. They view poultry imports and their sales to consumers at subsidized prices as counter-productive to producer interests.

Foreign Trade

Total agricultural imports by Iran in 1975/76 were \$2.0 billion, with the U.S. share at 30 percent. According to Iranian sources, these included 2.1 million tons of grains, 597,449 tons of sugar and products, 377,711 tons of fruits and nuts, 268,765 tons of animal and vegetable fats and oils, 71,310 of meat and offals, and significant numbers of live animals, dairy, and poultry products. The estimate for agricultural imports for 1976/77 stands at \$2.4 billion, with the United States contributing about one-fourth.

Iran's agricultural exports in 1976/77 were \$307 million. The largest item was cotton, comprising about one-third of the total. Fruits and nuts, led by raisins and pistachios, and hides and skins were important.

U.S. Trade

U.S. agricultural exports to Iran fell sharply in 1976. Lower prices were important in this drop. Also, the Iranian Government significantly decreased its purchases as the country's economy slowed down in 1976 as a result of lower oil revenues.

Some countries are making inroads into the U.S. share of the Iranian market. Of particular importance is Brazil's increasing share of the soybean oil market and Argentina's increasing share of the feed grain market. (*Michael E. Kurtzig*)

Table 21--U.S. trade with Iran, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Rice.....	366.2	240.4	165,798	74,504
Wheat.....	726.5	437.8	137,589	52,815
Soybean oil.....	68.0	46.8	56,343	24,987
Corn.....	59.9	166.0	8,065	18,987
Barley.....	16.3	114.1	2,476	13,802
Other agricultural.....	--	--	52,900	53,454
Total agricultural.....	--	--	423,171	238,549
Total exports.....	--	--	3,243,700	2,776,000
Imports:				
Sheep and lamb skins.....	9.0	8.2	34,593	31,006
Pistachio nuts.....	6.4	5.6	17,194	17,142
Licorice root and extract.....	8.4	5.0	3,763	3,750
Dates.....	6.5	7.2	2,620	3,607
Other agricultural.....	--	--	5,832	6,516
Total agricultural.....	--	--	64,002	62,021
Total imports.....	--	--	1,398,200	1,479,500

IRAQ

Improvements in transportation, marketing, food supplies, and services occurred in 1976, following serious problems of port congestion, shortages, and civil unrest in 1975. The GNP increased about

7 percent in 1976 to \$12 billion, including a 24 percent rise for agriculture and an equally impressive gain for construction. Per capita GNP now exceeds \$1,000 annually.

Agricultural development will receive high priority in 1977. Imports of machinery, breeding animals, and food processing equipment have increased recently within plans to expand activities of cooperative farms.

Petroleum output was curtailed in 1976 because high prices reduced export demand. Output is scheduled to rise in 1977. Despite Government controls and marketing regulations, consumer prices increased about 10 percent in 1976.

Agricultural Production

Agricultural production rebounded in 1976, second-best year in the last decade. Agriculture has become more diversified since 1972, when a bumper 2.6 million-ton wheat harvest caused total agricultural production to peak. Output in 1976 rose about 25 percent from 1975. Wheat production in 1976 was only half the 1972 peak but 54 percent above 1975. Production of vegetables, dates, corn, and livestock products was substantially higher.

Barley and rice production in 1976 remained below the 1972 level. Shortages of irrigation water and labor problems caused rice output to decline from 268,000 tons of paddy in 1972 to only 61,000 tons in 1976.

Expansion of hybrid corn output on state farms helped push up corn production in 1976.

Foreign Trade

Total exports increased to \$8.9 billion in 1976. Petroleum accounted for over 95 percent of Iraq's exports during 1974-76 in contrast to about 80 percent in the late sixties.

Imports (excluding military items) increased to \$2.4 billion in 1975 and approached \$4.2 billion in 1976. U.S. exports to Iraq increased in 1976, although agricultural exports declined one-third.

Total agricultural imports increased to \$705.5 million in 1974, remained nearly the same in 1975, and approached \$1 billion in 1976. Wheat imports increased sharply to 671,800 tons for \$161 million in 1974, when two-thirds of the supply came from the United States. They retreated to 512,000 tons in 1975, but larger arrivals from Australia and Canada caused wheat imports to exceed 700,000 tons in 1976.

Rice imports reached 198,000 tons for \$105 million in 1974. Smaller arrivals from Thailand, China, and the United States caused rice imports to decline in 1975, but larger imports from Pakistan were prominent in a rebound in 1976.

Sugar was the leading agricultural import in terms of value during the early seventies. Sugar imports advanced to \$223.5 million in 1975. Lower world prices lowered sugar imports' value below \$200 million in 1976 although the volume increased to about 400,000 tons.

Table 22--U.S. trade with Iraq, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Poultry, frozen.....	0	28.1	0	28,648
Wheat.....	80.4	107.2	13,869	18,778
Inedible tallow.....	5.0	12.7	1,765	4,925
Rice.....	15.0	1.0	64,001	4,469
Other agricultural.....	--	--	6,411	4,489
Total agricultural.....	--	--	86,046	61,309
Total exports.....	--	--	309,700	381,800
Imports:				
Wool.....	0.1	0.3	146	481
Licorice root.....	2.1	1.4	538	380
Dates.....	13.5	1.3	5,315	67
Other agricultural.....	--	--	44	53
Total agricultural.....	--	--	6,043	981
Total imports.....	--	--	19,100	110,000

France and Hungary supplied most of the 15,000 tons of frozen poultry imported in 1975 but a tender for 35,000 tons for 1976 delivery was larger than they could accommodate. This tender was given to U.S. suppliers who also helped provide improvements for unloading and distributing frozen poultry in Iraq.

The sensational increase in U.S. exports of frozen poultry to Iraq prevented a traumatic skid in the value of total U.S. agricultural exports to that fluctuating market during 1976. Rice exports dropped greatly but exports of wheat, tallow, while tobacco increased. U.S. barley exports to Iraq fell from 28,575 tons in 1975 to 14,800 tons in 1976.

U.S. agricultural imports from Iraq declined sharply in 1976 as the value for imports of Iraqi dates fell to a fraction of the \$5.3 million in 1975. Iraq has indicated that larger U.S. purchases of their farm products could favorably influence imports of U.S. agricultural items.

Iraq is a potential market for U.S. soybeans, soybean oil and meal, peanuts, peanut oil, processed foods, and mutton. Malaysian palm oil and Brazilian soybean oil provided most of the 150,000 tons of cooking oil sold in Iraq last year.

U.S. rice exports to Iraq in 1977 are expected to total 60,000 tons, but consumers would be happy to have three times that volume if policy permitted it. Urban consumers in Iraq complain that the feast or famine situation and bare grocery shelves should be replaced with adequate stocks and a pipeline flow schedule for grain and meat supplies.

Outlook

Improved irrigation, greater fertilizer use, and new projects to boost meat output should provide some gain in agricultural production in 1977. Programs to improve food supplies and distribution are likely to cause the value for agricultural imports to rise about 20 percent in 1977. Higher prices for imports of tea, coffee, oilseed products, and meat will be partly offset by lower prices for wheat, rice, coarse grains, and sugar.

Prospects for U.S. agricultural exports to Iraq are clouded by more intense competition from other suppliers and U.S. laws concerning the Arab boycott of Israel. Some sales of U.S. wheat, rice, and frozen poultry have already occurred this year, but the large potential for U.S. farm products in this market is not being realized. (*John B. Parker*)

ISRAEL

Israel's agriculture improved slightly in 1976. The increase was mainly due to larger production of animal products and sugarbeets.

Israel's GNP growth rate was about 1 percent, but inflation, which had been brought somewhat under control in 1975, again was on the rampage at 38 percent. Israel's balance of payments improved. Agricultural exports were sharply higher as the policy to emphasize agricultural exports bore fruit. The food bill continued to take a greater chunk of the average Israeli's budget.

Agricultural Production

The 1976 agricultural year was marked by a sharply lower wheat crop. The crop was affected by dry weather and bad distribution of otherwise plentiful rain in the north. This was Israel's second consecutive year of drought and it resulted in substantially higher import needs in 1975 and 1976, estimated at 420,000 tons and 500,000 tons, respectively. The higher imports in 1976 were also used for stock building since prices were quite low. Some of the increased need was attributed to higher takings in the West Bank which also suffered from drought.

Feed grain production, never large, was even smaller than usual with consequent larger imports.

Total output was around 54,000 tons with imports at 1.2 million tons. The United States is the major supplier of corn and sorghum. Total feed grain consumption is increasing at 2-3 percent per annum.

Cotton output for 1976 was up 11 percent. Export availability was 29,000 tons with domestic consumption up slightly to 24,000 tons. Farmers received excellent prices and this encouraged expanded planting in 1977. Present estimates are 50,000 hectares with a potential crop of 60,000 tons.

Citrus

Israel's total citrus production of 1976/77 is expected to dip slightly, as will total availability of fresh citrus for export. Production of Shamouti oranges, the major citrus exported, is estimated to have dropped to 570,000 tons. Grapefruit production was expected to total around 420,000 tons, down slightly from 1975/76. Total export availability is estimated at 940,000 tons, approximately 3 percent below last year's.

Israel's major export markets for citrus continue to be the United Kingdom and West Germany, which together took 43 percent of the 1975/76 crop. Shipments to the United States, always small, were almost nil and shipments to Canada doubled to 5,900 tons.

In 1975/76, there was another sharp drop in oranges diverted for processing. Total oranges processed were 215,000 tons, a decline of 26 percent from the previous season. This compares with a 5-year average, 1970/71-1974/75, of 424,800 tons. During the same period, grapefruit going for processing have risen steadily—172,000 tons in 1975/76. The lower tonnage of oranges available for processing resulted in fewer concentrates available for export, and some processors began importing orange concentrates to mix with their own, mainly from Brazil.

Citrus production in the occupied West Bank was slightly lower in 1975/76 at 61,150 tons, which is almost totally consumed locally. In the Gaza area, production in 1975/76 was estimated at 217,000 tons, almost 7 percent higher than in 1974/75. During the year, the marketing situation changed significantly as now about 40 percent of the Gaza produce is shipped overland through Jordan to Iran, replacing a significant amount of citrus that previously was shipped to Eastern Europe. Exports to Iran in 1975/76 were about 40,000 tons. Trucks reach Iran in about 4 to 5 days after leaving Gaza. Israeli fruit destined for Iran still continues from the Port of Eilat via the Persian Gulf.

Poultry

Israel continues to suffer from large surpluses of eggs and broilers. Annually, the egg surplus is about 150 million. About two-thirds will be exported at prices that hardly cover packaging, transportation, and storage costs. Turkey production is also increasing faster than local consumption requires. Increased exports of turkey parts to the EC has served as a regulatory valve for this sector. However, these exports require special Government assistance. With broilers the situation is not as favorable since, at current prices, exports would result in large losses. The Government has twice raised the prices of imported frozen beef in an effort to divert purchasing power to poultry meat.

Per capita consumption of poultry and meat increased about 5 percent in 1975. Israel is one of the highest per capita consumers of eggs and poultry meat in the world.

Agricultural Policy

The policy of subsidizing livestock products, especially milk and eggs, continued throughout 1976. Despite repeated declarations that these would be gradually eliminated, the subsidies were increased twice, and by August the subsidy per unit was double what it had been at the beginning of the year. In November, subsidies were cut by 25 percent, reverting to the April level.

On November 3, 1976, the Ministry of Finance announced a 20-percent increase of all subsidized agricultural commodities. The changes in consumer prices of all these items reflected mainly the diminishing value of the Israeli pound.

Agricultural Trade

Israel's agricultural exports continued strong in 1976. Israel's major export—citrus—while enjoying good prices in 1975, saw little improvement in 1976. However, other items, especially vegetables, continued to increase both in quantity and price. Agricultural exports in the first 9 months of 1976 increased 20.4 percent to \$363.3 million. The Israeli Government continues to pursue a strong export posture and assists exporters through various subsidies and export premiums. Agricultural imports were estimated at \$700 million, consisting largely of wheat, feed grains, soybeans, and frozen beef. These have now become the staples of Israel's agricultural imports.

Total imports were estimated at \$4 billion, down 3.6 percent from 1975 while total exports were up 22.6 percent to \$2.4 billion. The trade deficit fell sharply from \$2.2 billion in 1975 to \$1.6 billion in 1976.

U.S. Trade

U.S. agricultural exports to Israel declined 15 percent in value in 1976, although volume fell only 3 percent. A significant drop in price not only caused a value decline but also encouraged greater purchases for stock building.

There was a 42-percent increase in the value of Israeli fresh cut flowers imported by the United States, up to \$131,000. Israel is pushing the export of this commodity.

Outlook

Israel's agriculture will likely not change very much in 1977. A larger wheat crop is expected, which should lower import needs in 1977. Feed grain consumption is expected to increase slightly. The Government continues to emphasize greater exports of citrus and vegetables as well as cut flowers to the European market. Surplus production of eggs and milk will continue, as political considerations outweigh economic factors. Consumers will pay higher prices for food, which will cause a further switch of purchasing power towards food. In 1975, out of total private consumption expenditure for food and industrial products, food took 55.3 percent, compared with 50.3 percent in 1974. Inflation in 1977 is expected to be lower than the 38 percent experienced in 1976. (*Michael E. Kurtzig*)

Table 23--U.S. trade with Israel, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Soybeans.....	390.1	385.7	98,284	78,351
Grain sorghum.....	637.5	687.8	76,733	72,878
Wheat.....	508.0	428.2	80,330	60,469
Corn.....	235.7	243.7	34,292	29,692
Other agricultural.....	--	--	22,702	22,627
Total agricultural.....	--	--	312,341	264,017
Total exports.....	--	--	1,551,200	1,409,200
Imports:				
Grapefruit.....	1.3	2.3	775	1,221
Licorice extract.....	0.9	0.5	1,433	1,168
Bakery products.....	1.0	1.2	1,086	1,146
Oranges.....	4.8	1.9	1,017	997
Other agricultural.....	--	--	7,457	8,430
Total agricultural.....	--	--	11,768	12,962
Total imports.....	--	--	314,100	424,200

JORDAN

Despite poorer agricultural crops, the Jordanian economy continues to move ahead impressively. The GNP growth in 1975 was 9 percent in real terms and the growth rate in 1976 is estimated at 13-15 percent. This sharp increase in the GNP is attributed to an unprecedented boom in construction activity, acceleration of tourism, and large increases in public and private investment outlays. The agricultural picture is bleak; for 2 successive years, drought sharply reduced crops.

Agricultural Production

The dependence on rainfall by over 95 percent of the agricultural land and the great variations of rainfall from year to year cause a high degree of variability in yields. Wheat, which is almost totally rainfed, has fallen victim to another poor year. Although up from the disastrous crop of 1975 by 36 percent, the 1976 crop is approximately half of the average production over the recent past.

Barley in 1976 fared a little better as it is an earlier crop, less dependent on late rains. Production was estimated at 13,300 tons. Vetch production is estimated at only 3,000 tons. The lentil crop was 9,500 tons.

Livestock

The livestock sector usually contributes about one-third of the total value of agricultural production but reaches as high as 50 percent in years of poor crops. Livestock production has not kept up with domestic demand, and the result is a growing deficit of livestock products. This is partly a question of priority in allocating land and water for production of livestock feed. Irrigation water is largely used for the production of high-value vegetable crops. The major part of the livestock sector is sheep, largely the Awassi type for meat and carpet wool.

The poultry industry is one sector that has made good strides. But a serious outbreak of Newcastle disease in a number of poultry flocks was reported in January, which could have significant impact on the industry. Estimates are that about one-quarter of the broilers and layers in the flock were affected.

Agricultural Policy

Jordan does not have a price support or direct subsidy program for its farmers and, with the

exception of the following, does not offer them guaranteed prices: (a) tobacco leaf when the entire crop is purchased by the cigarette industry at Government fixed prices; (b) potatoes, to the extent that the Agricultural Marketing Organization contracts with farmers for certain varieties, as an effort to encourage them to increase output; (c) wheat, for which the Government fixes a guaranteed price each year, yet even with the fixed price, it has been unable to buy substantial amounts of wheat from the farmers—the maximum was in 1974, only 10,000 tons.

Five-Year Development Plan

Jordan is entering the second year of its Five-Year Development Plan (1976-80), which aims at increasing both the rainfed areas and irrigated agriculture. The plan projects an increase in agricultural income of 7 percent per annum. A substantial expansion is planned in the area under irrigation in the Jordan Valley where many infrastructural projects (roads, schools, clinics, housing, and so on) are being undertaken by the Government with the aid of foreign donors.

The plan places primary emphasis on expanding export-oriented production (particularly for the expanding Middle Eastern market) of high value fruits and vegetables. It places less emphasis on import substitution, particularly of cereals. To achieve these ends, the plan calls for an integrated development of the Jordan Valley, where the bulk of agricultural investments are to take place (55 percent). Livestock feed and fodder production in

the highlands are also emphasized. The plan's major projects are to increase production of vegetables, fruit, wheat, milk, meat, and eggs. Over 60 percent of the Government investment is devoted to three projects: the Rainfed Farming Project, the Dairy Cows Project, and the Irrigated Farming Project.

Foreign Trade

Imports for the East Bank of Jordan for 1975 totaled about \$739 million, up 50 percent from 1974. The increase was attributable both to higher world prices and increased imports. Agricultural imports accounted for 21 percent of the total value of all imports in 1975, compared with 28 percent in 1974. The United States was Jordan's major supplier from 1971 to 1974 but it was edged by West Germany in 1975, which supplied 10.7 percent of total imports. Of Jordan's agricultural imports, the United States supplied 5.3 percent.

Wheat import needs for the East Bank are estimated at a record 255,000 tons, between July 1976 and June 1977, of which at least 70 percent is expected from the United States. In addition, the immigration of a number of Lebanese fleeing from the war in their country may have created some additional import demand. Concessional imports and donations, the bulk of wheat imports, averaged about 135,000 tons during 1974-76. P.L. 480 imports represented 57 percent, UNRWA, 37 percent, and the remainder, supplied by the EC.

While Jordan's imports increased substantially, its exports increased very little, resulting in a

Table 24--U.S. trade with Jordan, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat.....	107.6	147.7	16,748	21,038
Corn.....	0	16.0	0	1,773
Tobacco.....	--	0.3	67	1,266
Wheat flour.....	0.7	4.8	190	949
Other agricultural.....	--	--	2,524	3,658
Total agricultural.....	--	--	19,529	28,684
Total exports.....	--	--	195,400	234,000
Imports:				
Total agricultural.....	--	--	20	0
Total imports.....	--	--	800	200

record trade deficit of \$584 million. Total exports in 1975 were \$127 million, up 1.7 percent from 1974. Jordan's main agricultural exports continue to be fruits and vegetables and its contiguous neighbors are the best customers. Jordan's number one export earner remains rock phosphate for which Turkey, Taiwan, India, Japan, and Czechoslovakia are the major buyers.

U.S. Trade

Jordan's poultry industry is expanding rapidly. Since most of the feed ingredients are imported, there are increasing requirements for corn, soybean meal, and feed concentrates. Until bulk handling facilities are installed at Jordan's only port of Aqaba, U.S. suppliers may find the competition from nearer suppliers precludes purchases of U.S.

feed ingredients because of the small quantities purchased and the need for bagged materials.

Outlook

The Jordanian agricultural situation for 1977 does not appear to be favorable. Wheat production in the East Bank will likely be less than last year, necessitating substantial wheat imports for the third year in a row.

The poor precipitation will likely hurt other crops as irrigation water supplies may be reduced. Spring rainfall has been generally good in the northwest and western parts of central Jordan but it has been reported poor in the eastern grain growing areas. As one goes further south, the rain conditions deteriorate and the crop becomes poorer. *(Michael E. Kurtzig)*

KUWAIT

Petroleum output remained about one-fifth below the 1974 peak because of Government policy. Kuwait's leaders believe that this natural resource must be carefully managed since reserves will be depleted in 30 years at the current rate of extraction. Programs to make Kuwait a more important financial, industrial, and regional service center were accelerated in 1976 as leaders sought to reduce the dominant role of petroleum in the national economy.

Petroleum revenues, which declined to \$8.1 billion in 1975, remained about the same in 1976. Higher petroleum prices helped offset the slight reduction in output.

Income from foreign investments and interest is a growing source of funds for Kuwait. Loans to developing countries through the Kuwait Arab Development Fund increased in 1976.

Agricultural Production

Cucumbers and tomatoes are the two major crops grown on the 200 hectares of arable land in Kuwait. Winter rains were unusually favorable in early 1976 and more imported sheep were used for grazing in pastures during the spring. New date palm orchards have been established near Jafna.

Poultry enterprises are expanding in Kuwait, but most of the operations contain less than 2,000 chickens. Plans to build large commercial broiler operations in desert areas of northern Kuwait are under consideration.

Foreign Trade

Total exports rose to \$9.4 billion in 1976 and total imports approached \$3 billion.

Agricultural imports in 1976 were \$420 million, more than double those in 1973. Government subsidies allow shoppers in Kuwait to spend less than 16 percent of their income on food although 96 percent of the supply is imported. Processed foods from all over the world can be seen in the thousands of small grocery stores sprinkled throughout urban areas.

U.S. agricultural exports to Kuwait increased 22 percent in 1976 to \$12.9 million, but remained below the peak of \$21.3 million in 1974. U.S. rice exports to Kuwait after declining from a record 27,922 tons for \$13.6 million in 1974 to only 755 tons in 1975, edged back to 2,159 tons for \$1 million in 1976. A shift to basmati rice from Pakistan and India reduced demand for U.S. rice in Kuwait.

U.S. soybean exports to Kuwait increased from 2,869 tons in 1974 to 8,954 tons in 1975 when it was the leading U.S. export to this rich market. However, Brazil took over the market for soybeans in Kuwait in 1976 and Kuwait purchased none from the United States. In 1972, a new mill for crushing soybeans opened near the harbor area where the flour mill operates. Imported soybeans are used as raw materials for the mill. Soybean oil is sold to local cooperatives for cooking, and soybean meal is sold to poultry farmers and farmers who specialize in fattening imported sheep.

Excluding the two important items noted for wide fluctuations, rice and soybeans, U.S. agricultural exports to Kuwait increased from \$8.0 million in 1975 and \$11.9 million in 1976. The Food Fair held at the Kuwait Hilton in April 1976 apparently influenced U.S. exports of certain products to this market. U.S. exports of frozen poultry to Kuwait increased from 227 tons in 1975 to 783 tons for

\$964,000 in 1976. Some other U.S. products with significant gains in 1976 included almonds, pulses, canned peaches, fruit cocktail, tomato juice, and meat sauces.

The standard of living for native Kuwaitis was already high before petroleum prices were hiked in 1973, but the diet of many immigrants was deficient. Higher wages and food subsidies have enabled immigrants in Kuwait to greatly improve their diet in the last 3 years. This is reflected in the striking gains in imports of meat and dairy products from Australia, the European Community, and Latin America.

Outlook

Kuwait's agricultural imports are expected to reach \$400 million in 1977. Despite some political problems, it appears that U.S. exports of frozen poultry and processed foods to Kuwait will rise in 1977. However, the U.S. share of Kuwait's total agricultural imports will probably remain below 4 percent in 1977. But as the volume of imports rises to meet growing demand, U.S. suppliers are considered more seriously because of their reputation for prompt delivery of high-quality products. (*John B. Parker*)

SAUDI ARABIA

Agriculture accounted for only 3 percent of Saudi Arabia's GNP in 1976, in contrast to about 87 percent for petroleum. Output of petroleum rebounded in 1976 while some other members of OPEC pursued a policy of scheduled curtailment of drilling operations. The Saudi policy of petroleum extraction and advocating minimum price hikes helped calm plans for much greater price increases from other OPEC members. Extraction of Saudi crude petroleum increased from 1.3 billion barrels in 1970 to a peak of 3.0 billion barrels in 1974 and retreated to 2.5 billion barrels in 1975 as high prices caused a setback in world demand. Revived demand in 1976 allowed Saudi crude petroleum to again approximate 3.0 billion barrels.

Despite elaborate spending for development projects and imports, Saudi foreign exchange reserves increased to over \$23 billion in October 1976. The Saudi Arabian Monetary Agency handles the country's financial affairs including considerable loans and grants to developing countries. Food imports are handled by many private wholesalers and merchants who seldom have direct access to the huge financial resources of the Saudi Arabian Monetary Agency distribution programs.

Port congestion has eased as new berths became operational, and even helicopters were used to move fresh produce from ships in Jidda's harbor.

Agricultural Production

Improvements in irrigation facilities and greater use of highly subsidized and free inputs contributed to a gain in Saudi Arabia's crop production in 1976—estimated at 6 percent above the previous peak in 1975. Strong gains in the output of vegetables and wheat accounted for most of the increase in crop production in the last 4 years.

In terms of value, the leading crop in Saudi Arabia is dates. Production of dates is below the peak in 1970 when 252,000 tons were harvested. Alfalfa,

a major source of feed for 4 million sheep and goats, is often grown beneath date trees. About 1 million tons of alfalfa were harvested in 1976 from about 29,900 hectares.

Wheat production increased from 90,000 tons in 1974 to about 194,000 tons in 1975, according to subsidy payment records. Total wheat production in 1976 is estimated at 205,000 tons. Government payments of 7 cents per kilo enable Saudi farmers to receive over \$5 per bushel for wheat. Greater use of high-yielding varieties (Kalyan Sona and Mexipak) and more fertilizer bolstered yields in 1976.

The second most valuable crop in Saudi Arabia is watermelons, over half of which are grown in Qasim Amirate. In addition to food, watermelons are valued in Saudi Arabia for their seeds. These are dried, cooked in a salt brine solution, and sold by vendors as a snack food. Watermelon rinds provide some food for sheep and goats during the summer when winter pastures have dried up.

Output of tomatoes exceeded 400,000 tons in 1976—quadruple the 1971 level. High-yielding varieties of American tomatoes thrive in Saudi Arabia, particularly in the winter and spring. Exports of Saudi tomatoes to neighboring countries exceeded \$1 million in 1976. The average yield for the entire country is about 11 tons per hectare.

Broiler output rose from 8,000 tons in 1974 to 12,000 tons in 1976. Egg production also expanded markedly yet demand grew faster.

New development programs are scheduled to greatly increase output of coarse grains, fruits, vegetables, oilseeds, and livestock products.

Foreign Trade

Total Saudi exports increased from \$7.7 billion in 1973 to \$31 billion in 1974 because of the sudden increase in petroleum prices, but they retreated to \$28 billion in 1975. Greater petroleum shipments pushed the value for Saudi exports above \$31 billion in 1976.

U.S. imports from Saudi Arabia increased tenfold from \$515 million in 1973 to \$5.2 billion in 1976. U.S. exports to Saudi Arabia rose sixfold—from \$442 million in 1973 to \$2.7 billion in 1976. U.S. agricultural exports during this period rose from \$65.5 million to \$165 million.

U.S. agricultural exports to Saudi Arabia increased during 1971-75 primarily because of larger deliveries of cereals and products. Their share of U.S. agricultural exports to Saudi Arabia declined from 79 percent during 1971-75 to only 62 percent in 1976. Some of the big gains in 1976 came from expanding U.S. exports of frozen poultry, beef, animal feed, cooking oil, and various processed foods.

The United States is Saudi Arabia's leading supplier of wheat flour, rice, vegetable oils, animal feed, and some processed foods. As yet the United States has not shared in the rising imports of coarse grains, apples, and live animals. Competition from European and Asian suppliers of processed food is keen.

Saudi Arabia's imports of wheat and wheat flour are increasing despite rising wheat production. Demand has accelerated because of rising incomes, improved distribution, and immigration. In terms of wheat equivalent, imports of wheat and flour combined increased to a record 640,875 tons in 1976 valued at almost \$109 million.

Australia has dominated wheat imports since 1974. Imports of Australian wheat increased from

33,526 tons in 1974 to about 80,000 tons in 1976. Canada became a more important wheat supplier in 1976, providing 12,000 of the total imports of 115,000 tons.

The United States supplied nearly 58 percent of the 1976 wheat flour imports estimated at 378,600 tons. Thailand sent about 100,000 tons of corn to Saudi Arabia in 1976—triple the 1973 level. Imports of corn and sorghum from Africa increased slightly in 1976.

Total rice imports increased to over 300,000 tons in 1976 for an estimated value of \$124 million. Imports of Thai rice increased to about 125,000 tons in 1976 valued at \$45 million. U.S. rice exports to Saudi Arabia increased in 1976. American rice is popular in urban areas and along the Red Sea while Basmati rice from Pakistan is popular in the Eastern Province. Pakistan sent 47,540 tons of rice to Saudi Arabia in 1975 valued at \$37.0 million, or \$778 per ton.

Imports of live sheep and goats have declined from a peak of 1.46 million head in 1972. Drought and rising demand for live animals in other Middle-eastern markets reduced the number shipped to Saudi Arabia from Somalia, the leading source. Shipments of sheep and goats from the Sudan in recent years have been far below the peak of 523,000 head imported in 1971.

Beef and mutton imports have remained small in contrast to poultry imports, although the rate of growth has been faster. Imports of frozen poultry

Table 25--U.S. trade with Saudi Arabia, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Wheat flour.....	184.0	217.8	43,732	52,656
Rice.....	80.2	116.4	37,054	48,814
Poultry feed, prepared.....	15.4	29.9	3,724	8,328
Corn oil.....	4.6	6.4	7,330	8,023
Other agricultural.....	--	--	25,262	47,158
Total agricultural.....	--	--	117,102	164,979
Total exports.....	--	--	1,501,800	2,774,100
Imports:				
Coffee.....	0	--	0	65
Other agricultural.....	--	--	62	0
Total agricultural.....	--	--	62	65
Total imports.....	--	--	2,623,300	5,213,400

increased from 17,991 tons in 1974 to about 36,000 tons in 1976 valued at about \$36 million.

Imports of fruit juices have trended upward in recent years. Imported fruit juices can be purchased in some cities for prices lower than bottled water. The United States provided about one-sixth of the fruit juices imported in 1976 valued at about \$17 million.

Saudi imports of fresh fruit increased to about 136,000 tons in 1976. Imports of oranges increased to about 60,000 tons in 1976; larger amounts from Jordan, Egypt, and North Africa more than offset smaller arrivals from Lebanon. The United States sent 4,100 tons of oranges to Saudi Arabia in 1975 for \$905,000.

Saudi Arabia is a leading importer of canned and frozen vegetables in the Mideast. Rising domestic production caused a sharp decline in imports of potatoes, onions, and tomatoes. Yet imports of vegetable preparations in 1976 almost double the 1973 level of 14,293 tons, when Lebanon, Syria, and Spain were larger suppliers than the United States.

U.S. exports of frozen vegetables to Saudi Arabia increased to \$438,000 in 1976. Saudi Arabia

ranks among the five major U.S. export markets for tomato juice, tomato puree, and pickles.

Czechoslovakia, India, and France are important suppliers of sugar imports by Saudi Arabia. Sugar imports now exceed 120,000 tons annually.

Outlook

Petroleum output is scheduled to increase about 10 percent in 1977. Total agricultural imports are likely to rise about 30 percent.

The rapid rise in Saudi Arabia's food imports presents some highly favorable opportunities for developing new markets for U.S. rice, many processed foods, frozen poultry, animal feed, and vegetable oils. Saudi Arabia is likely to remain one of the five major U.S. markets for wheat flour, rice, corn oil, fruit juices, and snack foods in 1977.

Further gains in U.S. exports of rice are likely to add about \$20 million to the value of U.S. agricultural exports to Saudi Arabia in 1977. Spectacular gains for exports of many processed foods are also underway, but from a low base level. The total value for U.S. agricultural exports to Saudi Arabia may surpass \$200 million in 1977. (*John B. Parker*)

SYRIA

Syria's economy has been beset by inflation estimated at about 30 percent and shortages exacerbated by the presence of, at times, up to a million Lebanese refugees. These conditions have put great pressure on Government-controlled food and fuel prices which are generally set below world market prices.

Syria's population is estimated at over 7.5 million and growing at more than 3 percent annually. About half of the labor force is employed in agriculture yet in 1976, agriculture contributed only about 18 percent to the GDP.

Agriculture depends heavily on the weather because over 80 percent of Syria's crops are grown on unirrigated land. Winter and spring rains are the key factor in determining yields of major crops and pastures.

The 1975-76 Lebanese civil war affected the Syrian economy in many ways. The influx of hundreds of thousands of Lebanese refugees caused temporary shortages in consumer items—rice, cheese, eggs, and coffee. Also, the closing of the Beirut Port increased the pressure on Syrian ports, where at one time, in-port waiting reached 60 days, adding to the cost of imported goods. In addition, Syria's sending troops to Lebanon in June 1976 caused a considerable drain on the economy. The country's income problems had already taken a

turn for the worse earlier in 1976 when Iraq stopped pumping oil through Syrian pipelines to the Mediterranean. This has reportedly cost Syria an estimated \$125 million in lost royalties in addition to the expense of buying other-origin, more expensive oil on the open market.

Agricultural Production

The major nonfood crop and most important export item, cotton, normally takes up about 40 percent of the irrigated land. The major dry farmed crops are wheat, barley, lentils, and chickpeas. Tobacco is an important export.

Although late autumn and winter rains were ample, inadequate spring rains held 1976 wheat output to 1.5 million tons, but barley, more drought-tolerant, produced a record 1 million tons—68 percent above the previous year.

Syria's sugarbeet crop was up in 1976 but production only accounts for about 17 percent of domestic needs and sugar imports are almost one-third of all agricultural imports.

Syria's record lentil crop of 160,000 tons, over twice the 1975 output, exceeds the domestic needs and will allow about 100,000 tons for export.

The cotton crop, which lost a little irrigated area to vegetables and high yielding wheat, produced

155,000 tons, only marginally lower than 1975's crop.

Livestock production is concentrated in sheep and goat raising but Syria is increasing its cattle numbers, which reached about 600,000 in 1976. Of these, roughly 250,000 make up the milking herds. There are ambitious plans for developing dairying. The fourth agricultural plan calls for the establishment of 27 600-cow state dairy farms and 250 cooperative dairy centers.

Syria is estimated to have about 5.8 million sheep and 825,000 goats and the Government has underway a program to assure adequate feed for these animals during years of drought.

Though its poultry flock is estimated at over 8.6 million chickens producing about 660 million eggs, Syria still imports sizable numbers of shell eggs.

Agricultural Policy

Since the beginning of 1976, a new, intensive agricultural plan has been in operation. The Supreme Agricultural Council each year sets up a plan for each province, and, accordingly, crop production licenses are issued to farmers in these provinces which require the use of predetermined crop rotations.

The Government, through state-operated agencies, provides farmers price supports for several basic food commodities, such as wheat, barley, and lentils, and for industrial crops such as cotton, tobacco, and sugarbeets. Price guarantees are usually announced before planting season and generally are valid for the entire crop.

Supreme Agricultural Council, formed in November 1975, decides on the support prices of agricultural commodities purchased by the Government every year.

The Syrian Government has price controls on most food items and issues a family supply card which permits holders limited quantities of sugar, rice, and cottonseed oil at prices considerably below free market prices. Flour is subsidized to bakeries which in turn are able to sell bread at very low prices.

On the marketing side, most of the important food and feed grains and industrial crops are handled by specialized Government agencies, and if a state agency exists for a commodity, it usually has exclusive rights for exporting. Private importers handle specialty items, and each year some food products are imported under exemptions for the Damascus International Fair.

Development

Syria's third 5-year plan ended in 1975 and the fourth 5-year plan began with 1976. The new plan foresees investments of some S.L. 3.7 billion (\$949

million) in agriculture, with about 77 percent for the development of animal resources.

Syria receives assistance from international programs such as the United Nations Development Program as well as bilateral programs such as those of the U.S. agency for International Development and loans and grants from Arab oil-producing countries.

The Euphrates River dam is considered completed except for some complementary work. Five of eight hydroelectric generator groups are supplying 80 percent of Syria's electricity requirements. When completely operational, the dam is designed to provide enough water for irrigating 640,000 hectares, which will more than double the present irrigated area.

Other irrigation developments include a Khabour River project, an irrigation network in the Ghab and Asharne regions, well drilling, exploration for underground water basins, and studies to improve and extend the Nahr-el-Kabir el-Shemali River Basin in Latakia province.

The construction of additional grain storage began in 1971, and about 47 percent of the capacity is built; the remaining 430,000 tons storage space is scheduled for completion before the end of 1978.

Fertilizer

Syria has one nitrogen fertilizer plant at Homs with an annual output capacity of 150,000 tons of 26 percent nitrogen. In 1975, 85,883 tons of nitrogenous fertilizer was produced. An additional 112,700 tons were imported. Also imported were 51,100 tons of phosphate and 500 of potash.

Agricultural Trade

Syria has entered into bilateral trade agreements with many countries. Most of the agreements outline the kinds of products to be exchanged. Under these arrangements, much of Syria's cotton is shipped to Eastern European countries and the People's Republic of China. The quantities in the agreements are subject to sales contracts worked out after the agreement is signed. Syria's exports in 1975 amounted to \$930 million, of which 19 percent by value were agricultural items, compared with 32 percent in 1974. This decline was due to a sharp drop in the value of cotton exports in 1975 and an increase in crude oil exports. Cotton is the second export item after crude oil, accounting for 13 percent of all exports in 1975. It is followed by leaf tobacco, wool, hides and skins, and lentils.

The value of Syrian imports during 1975, at \$1.7 billion, increased 36 percent over 1974 and reflects Syria's need to import items to meet the country's expanding food requirements. Traditional imports

Table 26--U.S. trade with Syria, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Tobacco.....	1.8	4.7	6,396	18,240
Rice.....	21.8	54.5	8,989	15,112
Soybean oil.....	0.2	5.6	187	2,903
Vegetable seed.....	--	0.1	234	608
Other agricultural.....	--	--	29,103	3,021
Total agricultural.....	--	--	44,909	39,884
Total exports.....	--	--	127,800	272,200
Imports:				
Tobacco.....	1.2	1.7	1,845	3,920
Wool.....	0.2	0.4	238	498
Sheepskins.....	--	0.1	2	488
Licorice root.....	0	0.8	0	393
Other agricultural.....	--	--	30	135
Total agricultural.....	--	--	2,115	5,434
Total imports.....	--	--	7,000	9,800

Outlook

As usual the outlook for Syrian agriculture depends on the rains which were ample in late autumn and above average by midwinter. This have included dairy products, eggs, animal fats, meat, and rice.

Trade with the United States rapidly expanded in 1975 and the U.S. supplied a total value of \$127.8 million, purchasing only \$7 million from Syria. In 1976 the U.S. sales to Syria increased but U.S. exports of agricultural items dropped about 11 percent.

suggests a good year for 1977 grains and other winter crops and pasture. Syria's most important cash crop, cotton, is practically all irrigated, the area and output of which is expected to remain unchanged until more of the Euphrates basin irrigation projects are completed.

The longer term outlook for Syrian agriculture continues promising. Demand is going up and there is heavy public investment in the agricultural sector. Regardless of this emphasis, it is doubtful that the agricultural sector can keep pace with the expanding demand in the foreseeable future. There will probably be a need for imports to fill the gap for many years to come. (*H. Charles Treackle*)

TURKEY

In 1976, Turkey had an excellent agricultural year: A record grain harvest; record total exports, mainly agricultural, as cotton and tobacco achieved record export levels; and an excellent sugar harvest, negating imports. Turkey's GNP is estimated to have increased by 7.2 percent, compared with 7.9 percent in 1975. Agriculture's share of the GNP continues to decline, now at 21.2 percent, compared with 21.8 percent in 1975.

Agricultural Production

In 1976, Turkey's record wheat crop was 30 percent above the average of 10.2 million tons during 1971-76. While weather was the major factor in producing 1976's excellent crop, also contributing to it has been the Government's systematic and determined efforts to introduce a series of improved practices into wheat production in the last several

years. They include earlier and better tillage to kill moisture-using weeds and to build an insulating mulch; use of herbicides; and increasing use of fertilizers.

The barley crop was 8.9 percent higher than in the previous year and grown on an estimated 2.7 million hectares, slightly up from 1975. With two consecutive good barley crops, Turkey exported about 400,000 tons in 1976/77, compared with 100,000 tons the previous period.

For wheat, the export situation improved in March-May 1977 when large sales were made. However, surplus stocks were available while awaiting another excellent wheat crop.

Cotton

Turkey's cotton production was down about 13 percent in 1976. On August 1, 1975 Turkey had record stocks of 340,000 tons. Improved international marketing combined with the Government's decision to grant a 15-percent export subsidy helped ship out virtually all cotton during 1975/76. The subsidy was ended after January 4, 1976, but higher international prices lifted total export registrations. Total exports in 1975/76 were 469,371 tons, compared with 127,000 tons the previous year. In the 1976/77 marketing year, export availability was estimated at 150,000 tons.

Tobacco

The 1976 Turkish tobacco crop was a record, 57 percent higher than in 1975. The increase is attributed to expanded acreage, favorable weather, and high support prices. Leaf tobacco exports in 1976 were 80,395 tons, up from 65,639 in 1975. The United States (59 percent) and West Germany continue to be Turkey's leading customers for tobacco.

Sugar

Sugar production continues to make impressive gains. A record crop of beets was harvested in 1976. Sugar outturn is estimated at 1.2 million tons, up 32 percent from 1975. Consumption in Turkey continues to increase at about 8 percent per annum. Of this increase, about 2.6 percent is due to population increment and the rest to higher incomes. Per capita use now is about 30 kilograms annually, compared with the U.S. figure of 52 kilograms. During the last 3 years, Turkey was a sugar importer; No sugar imports will be required in the 1976/77 marketing year.

Fats and oils

Estimates of Turkey's edible oil production for 1976/77 stand at 458,000 tons, about 14 percent

above the previous year. Olive oil production increased 56 percent to 150,000 tons, and sunflowerseed oil production rose to 190,000 tons. Turkey's olive oil production, even in "off" years, will probably no longer be less than 100,000 tons, as young orchards will begin commercial production this year. As 91 percent of the cottonseed production will be crushed, an outturn of 101,000 tons of oil is expected.

Total domestic consumption of oil for 1975/76 was around 418,000 tons. About 90,000 tons of the demand was met by olive oil and the rest by either liquid seed oils or hydrogenated oils. About 38,000 tons of seed oils were absorbed by the soap and canning industry.

Filberts

The 1976 filbert crop is estimated at 250,000 tons. Exports for the 1975/76 marketing year were nearly 225,000 tons, about 40 percent more than was shipped in the previous year; exports during the current marketing year are expected to be even larger.

Poultry

Poultry production has doubled in the last 10 years. Broiler production now totals 36,000 tons. Meat from chickens in smaller flocks around the country totaled 33,000 tons in 1976. Turkey meat output is 5,600 tons, increasing at a rate of about 200 tons per year since 1964.

Agricultural Policy

Prices for all agricultural commodities covered by the support program were increased during 1976 at rates ranging between 3.6 percent and 34 percent. The support price for sunflowerseed was raised only 4.5 percent much to the dissatisfaction of producers. Fertilizer prices were reduced to partially offset higher prices paid for other inputs.

As Turkish support prices continued to exceed world export prices for almost all commodities except cotton, it was necessary for the Government to grant export premiums in 1976. The Government granted olive oil export premiums of 10 to 20 percent. The export subsidies plus a 10-percent devaluation in the Turkish lira made Turkish exports more competitive on the international market.

Turkey is an associate member of the EC. An agreement reached in December 1976 allowed for further, new agricultural concessions on hazelnuts, 37.5 percent tax reduction; tomato paste, 30 percent-tax reduction; fruit juices and concentrates, varying between 20 and 80 percent tax reduction; unrefined olive oil, \$10 preferential reduction per

100 kilograms; and refined olive oil, 80-percent reduction. The EC preference covers almost 94 percent of the Turkish agricultural products.

Agricultural Trade

Turkey's total exports for 1976 were \$1.95 billion, up 39.2 percent from 1975. Agricultural exports, up 46.2 percent, constituted 64 percent of total exports, compared with 61 percent the previous year. Cotton exports were \$430 million, a record, up 87 percent from 1975. Tobacco was worth \$227 million, up 24 percent. Filberts were worth \$180 million, up 17 percent in 1976. Other leading items were raisins, citrus, and barley.

Agricultural imports totaled \$220 million, 4 percent of total imports. Vegetable oil imports were \$75 million. Wool imports were \$30 million and tallow, \$10 million. Wheat imports, which had totaled \$102.3 million in 1975, were down to \$1.3 million.

It is notable that U.S. agricultural exports to Turkey in 1976 contained no wheat.

Outlook

Turkey seems assured of another very good wheat crop in 1977, which will likely add to carry-over stocks. In early 1977 the government decided to sell wheat for exports at prices low enough to attract buyers. Cotton production of around 600,000 tons is expected. As 1977 is an election year, it will be difficult for the Government to resist demands for higher support prices. Such increases would reduce Turkey's competitiveness in tobacco exports. On the 1977 trade picture, cotton exports should be about half in value and total agricultural exports should be near \$1 billion, down 20 percent. No significant increase is expected in agricultural imports. And the U.S. market in Turkey will continue to be limited. (*Michael E. Kurtzig*)

Table 27--U.S. trade with Turkey, 1975-76

Commodity	Quantity		Value	
	1975	1976	1975	1976
	1,000 metric tons		1,000 dollars	
Exports:				
Inedible tallow.....	10.8	11.2	3,993	4,378
Sunflowerseed.....	14.6	5.0	3,860	1,356
Soybean oil.....	5.6	2.5	4,960	779
Cottonseed oil.....	0	0.5	0	285
Other agricultural.....	--	--	66,818	987
Total agricultural.....	--	--	79,631	7,785
Total exports.....	--	--	607,900	451,000
Imports:				
Tobacco.....	53.1	45.1	80,484	93,339
Pistachio nuts.....	2.0	3.2	5,177	8,052
Filbert nuts.....	2.4	3.2	4,341	4,966
Inedible molasses.....	0	31.8	0	1,860
Other agricultural.....	--	--	10,505	11,880
Total agricultural.....	--	--	100,507	120,097
Total imports.....	--	--	144,800	222,500

UNITED ARAB EMIRATES

As the only OPEC member siding with Saudi Arabia for a small increase in petroleum prices, the United Arab Emirates (UAE) illustrated its growing importance to the world economy. With only 700,000 residents and petroleum exports valued at \$8 billion in 1976, this new nation has the world's highest per capita GNP.

About 25,000 Americans and Europeans now live in Abu Dhabi and Dubai. Jobs in the petroleum industry and technical services provide high incomes. Immigrants from India, Pakistan, and Egypt accounted for over half of the UAE population in January 1977.

Agricultural Production

Only 1 percent of the 77,500 square miles of UAE is used for crops. Agricultural output increased significantly in 1976 in Ras al Khaimah and along the Batinah Coast, particularly output of tomatoes and melons. More farmers are taking advantage of both subsidized and free farm inputs. Plans to establish large new orchards along the road from Dubai to Abu Dhabi are expected to materialize in the next 2 years.

Ras al Khaimah accounts for over half the output of fruits and vegetables. Estimates for UAE crop production in 1976 place output of dates at 36,000 tons; tomatoes, 41,000 tons; melons, 30,000 tons; marrow and cucumbers, 28,000 tons; alfalfa, 23,000 tons; tobacco, 9,000 tons; and figs, 6,000 tons.

The agricultural experiment station at Diggada has been expanded to cover 300 acres of vegetable plots.

Foreign Trade

Total exports increased from \$7 billion in 1975 to over \$8 billion in 1976. In addition to petroleum, some natural gas is now exported.

Total imports by the UAE increased from \$844 million in 1973 to about \$4.3 billion in 1976. Agri-

cultural imports increased from \$137 million in 1973 to about \$400 million in 1976. Australia, Pakistan, the European Community, Lebanon, and Iran were major suppliers.

Pakistan supplies about three-fourths of all rice imports received by the UAE, which averaged over 110,000 tons annually during 1972-76. U.S. rice exports to the UAE increased from 130 tons in fiscal 1973 to a peak of 2,790 tons in fiscal 1974, but fell during the 2 following years.

U.S. agricultural exports to the UAE climbed from \$1.5 million in 1973 to \$13 million in 1976. Many commodities have scored spectacular gains in U.S. sales to the UAE. Some examples of rapid growth in U.S. exports to UAE include: almonds, fruit juices, canned vegetables, cream substitutes, beverage ingredients, cornstarch, pulses, popcorn, peanut preparations, beef, bakery products, honey, candy, coffee preparations, and vegetable seeds. U.S. exports of flour to the UAE neared 6,000 tons for \$1.1 million in 1976, but deliveries by Australia climbed to 43,000 tons. New flour mills at Abu Dhabi and Dubai should cause wheat imports to reach 30,000 tons in 1977.

Outlook

Total agricultural imports are likely to surpass \$500 million in 1977 because of improved port and marketing facilities and rapid population growth as more immigrants arrive.

The UAE is likely to become an important market for U.S. farm products in the next 3 years. There has been rapid growth in U.S. exports of a wide assortment of items to the UAE, yet, the United States currently supplies only 3 percent of UAE food imports. U.S. agricultural exports to UAE during 1977 will include larger deliveries of wheat flour, rice, frozen poultry, fruit juices, beverage ingredients, nuts, beef, canned fruits and vegetables, and a wide array of processed foods. (*John B. Parker*)

APPENDIX TABLES

Table 1--West Asia and Africa: Indices of agricultural production, total and per capita, by country, 1972-76

Region and country	(1961-65 = 100)					Per capita				
	Total									
	1972	1973	1974	1975	1976 <u>1/</u>	1972	1973	1974	1975	1976 <u>1/</u>
West Asia:										
Cyprus.....	156	120	157	133	118	145	110	143	121	107
Iran.....	135	144	159	172	189	104	108	116	121	129
Iraq.....	150	112	122	111	140	112	81	85	75	92
Israel.....	170	179	189	188	197	127	130	133	129	132
Jordan.....	134	66	165	73	109	98	47	113	49	70
Lebanon.....	159	150	177	153	151	124	114	131	110	106
Syria.....	127	73	124	119	133	95	53	87	81	87
Turkey.....	136	125	136	150	167	109	98	104	112	121
Total West Asia.....	139	128	143	152	169	103	97	105	109	118
Africa:										
Algeria.....	108	94	96	92	117	84	71	70	65	80
Angola.....	114	116	115	69	64	99	99	97	57	52
Benin (Dahomey).....	117	126	133	122	124	92	97	99	89	88
Burundi.....	130	129	110	130	130	117	115	96	111	108
Cameroon.....	122	116	131	126	130	104	97	107	101	103
Egypt.....	119	120	118	119	124	95	94	91	89	91
Ethiopia.....	114	111	115	104	108	93	88	89	78	79
Ghana.....	109	118	121	114	117	86	91	91	83	83
Guinea.....	126	127	128	130	132	106	105	103	103	102
Ivory Coast.....	150	145	173	202	208	110	102	118	133	132
Kenya.....	140	145	148	152	155	106	106	105	104	103
Liberia.....	141	149	165	157	157	108	111	119	110	106
Libya.....	177	188	199	214	210	123	126	128	132	124
Madagascar.....	129	123	136	139	141	107	99	108	108	107
Malawi.....	153	151	153	153	164	123	118	116	113	118
Mali.....	94	85	91	109	121	78	69	72	84	92
Morocco.....	148	118	146	119	153	116	90	107	85	106
Niger.....	95	71	95	88	103	74	54	70	63	72
Nigeria.....	119	112	119	121	124	95	87	90	89	89
Rhodesia.....	113	92	124	132	120	84	66	86	88	78
Rwanda.....	145	152	136	150	146	114	116	101	109	103
Senegal.....	79	95	122	140	139	61	72	90	100	96
Sierra Leone.....	118	118	121	125	128	96	94	94	95	95
South Africa, Rep. of	142	119	143	139	139	111	91	110	101	99
Sudan.....	136	132	140	128	145	112	106	111	99	110
Tanzania.....	127	128	119	129	135	101	99	90	95	96
Togo.....	124	120	124	127	127	100	94	95	95	92
Tunisia.....	145	155	187	217	208	121	127	148	167	157
Uganda.....	128	121	116	111	110	97	89	83	76	73
Upper Volta.....	86	84	101	100	98	70	67	79	76	73
Zaire.....	134	140	144	144	147	108	110	111	108	108
Zambia.....	150	133	164	172	185	115	99	119	121	126
Total Africa.....	125	119	128	126	131	100	93	97	93	94

1/ Based on preliminary data.

Table 2--West Asia and Africa: Indices of food production, total and per capita, by country, 1972-76

(1961-65 = 100)										
Region and country	Total					Per capita				
	1972	1973	1974	1975	1976 <u>1/</u>	1972	1973	1974	1975	1976 <u>1/</u>
West Asia:										
Cyprus.....	158	121	159	134	119	147	111	145	122	108
Iran.....	134	144	159	175	193	103	108	116	123	132
Iraq.....	151	112	122	111	141	113	81	85	75	92
Israel.....	166	177	183	183	191	124	128	129	126	128
Jordan.....	134	66	165	73	109	98	47	113	49	70
Lebanon.....	153	143	172	146	149	119	109	127	105	105
Syria.....	138	62	138	128	149	103	45	97	87	98
Turkey.....	132	122	131	149	165	106	95	100	111	120
Total West Asia.....	137	127	137	149	169	107	96	104	109	118
Africa:										
Algeria.....	108	94	96	92	118	84	71	70	65	81
Angola.....	102	112	112	87	79	89	96	94	72	64
Benin (Dahomey).....	113	122	130	119	121	89	94	97	87	86
Burundi.....	130	129	106	131	130	117	115	92	112	108
Cameroon.....	114	111	120	121	122	97	93	98	97	96
Egypt.....	122	124	125	131	136	98	97	96	98	100
Ethiopia.....	113	111	113	102	106	92	88	87	77	78
Ghana.....	109	118	121	114	116	86	91	91	83	82
Guinea.....	129	132	133	136	137	109	109	107	107	106
Ivory Coast.....	144	155	180	213	219	105	110	123	140	139
Kenya.....	131	132	136	145	140	99	96	96	99	93
Liberia.....	109	122	142	138	145	84	91	102	96	98
Libya.....	178	190	201	216	212	124	127	129	133	125
Madagascar.....	131	123	131	138	137	108	99	104	107	104
Malawi.....	147	140	145	130	142	118	109	110	96	103
Mali.....	82	75	79	88	95	68	61	63	68	72
Morocco.....	148	117	146	119	154	116	89	107	85	107
Niger.....	94	70	94	87	102	73	54	69	62	71
Nigeria.....	119	113	119	121	124	95	88	90	89	89
Rhodesia.....	139	110	148	152	138	103	79	103	102	89
Rwanda.....	145	152	136	150	146	114	116	101	109	103
Senegal.....	76	91	117	136	133	59	69	86	97	92
Sierra Leone.....	118	119	120	126	128	96	95	93	96	95
South Africa, Rep. of	150	125	157	146	147	118	95	117	106	105
Sudan.....	130	126	140	147	155	107	102	111	114	117
Tanzania.....	132	133	124	141	147	105	103	93	103	105
Togo.....	127	123	126	131	132	102	97	96	98	96
Tunisia.....	145	155	188	218	210	121	127	148	168	158
Uganda.....	122	120	123	116	117	93	88	88	80	78
Upper Volta.....	82	79	97	95	92	67	63	76	72	69
Zaire.....	132	139	147	145	150	106	109	113	109	110
Zambia.....	172	148	189	199	217	132	110	137	140	148
Total Africa.....	125	119	129	129	134	100	93	98	95	96

1/ Based on preliminary data.

Table 3 --Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-76

Country and year 1/	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops 2/	Citrus	Bananas and plantains	Sugar, raw	Peanuts in shell	Cotton seed	To-bacco	Coffee 3/	Cocoa beans 3/	Cotton
1,000 metric tons															
Algeria															
Average:															
1961-65.....	1,245	5	--	6	--	226	413	--	1	--	--	6	--	--	--
1971.....	1,317	5	--	2	--	274	505	--	2	--	--	4	--	--	--
1972.....	1,656	5	--	2	--	268	455	--	2	--	--	2	--	--	--
1973.....	1,157	5	--	2	--	270	450	--	8	--	--	2	--	--	--
1974.....	1,150	5	--	6	--	350	449	--	6	--	--	4	--	--	--
1975.....	900	4	--	6	--	322	444	--	7	--	--	3	--	--	--
1976.....	2,000	4	--	6	--	400	444	--	9	--	--	3	--	--	--
Angola															
Average:															
1961-65.....	19	360	68	27	1,309	144	71	195	66	30	12	4	176	--	5
1971.....	23	404	42	58	1,134	186	80	230	76	27	51	4	204	--	35
1972.....	13	400	27	50	928	162	80	230	84	26	30	5	225	--	18
1973.....	15	430	78	29	1,200	181	80	240	82	25	53	6	204	--	26
1974.....	12	600	80	28	1,100	160	80	250	80	20	63	7	186	--	38
1975.....	10	450	25	20	900	135	50	200	50	15	31	4	72	--	11
1976.....	10	450	25	25	900	110	40	200	40	15	36	3	72	--	16
Benin (Dahomey)															
Average:															
1961-65.....	--	219	65	1	1,108	559	--	--	--	27	3	1	1	--	1
1971.....	--	175	55	2	1,215	663	--	--	--	42	36	1	1	--	18
1972.....	--	207	56	2	1,240	679	--	--	--	42	34	1	1	--	17
1973.....	--	238	96	2	1,265	695	--	--	--	35	34	1	1	--	17
1974.....	--	310	91	2	1,300	711	--	--	--	40	24	1	1	--	12
1975.....	--	200	62	2	1,330	727	--	--	--	40	26	1	1	--	13
1976.....	--	200	62	2	1,360	743	--	--	--	40	28	1	1	--	14
Burundi															
Average:															
1961-65.....	7	98	118	3	854	687	--	1,141	--	2	5	--	15	--	3

Continued

Table 3--Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-76--Continued

Country and year	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops	Citrus	Bananas and plantains	Sugar, raw	Peanuts, in shell	Cotton- seed	To- bac- co	Cof- fee	Cocoa beans 3/	Cotton
1,000 metric tons															
Ghana															
Average: 1961-65	--	202	172	36	1,020	2,446	39	2,098	--	44	--	2	3	454	--
1971	--	384	295	67	965	2,694	45	2,455	10	71	--	1	5	464	--
1972	--	389	249	72	995	2,458	46	1,928	12	77	--	1	5	420	--
1973	--	438	276	75	1,020	3,219	47	2,340	7	86	--	3	3	353	--
1974	--	486	330	79	1,050	3,085	48	1,505	6	90	--	3	3	375	--
1975	--	475	273	78	1,080	2,724	49	1,843	14	93	--	2	4	397	--
1976	--	486	304	83	1,110	2,992	50	1,533	14	86	--	2	4	320	--
Guinea															
Average: 1961-65	--	137	62	278	411	84	29	80	--	19	--	--	11	--	--
1971	--	170	74	375	495	95	22	88	--	25	--	--	6	--	--
1972	--	174	76	375	505	97	22	90	--	25	--	--	8	--	--
1973	--	174	76	385	520	100	22	93	--	26	--	--	6	--	--
1974	--	178	78	386	530	102	23	95	--	27	--	--	6	--	--
1975	--	182	80	400	540	104	23	97	--	27	--	--	5	--	--
1976	--	188	86	401	550	106	22	99	--	27	--	--	5	--	--
Ivory Coast															
Average: 1961-65	--	158	47	219	488	1,407	--	757	--	25	5	2	207	109	3
1971	--	280	45	385	567	1,765	--	858	--	40	27	3	268	222	20
1972	--	226	45	320	585	1,736	--	902	--	40	31	3	303	179	21
1973	--	232	45	335	625	1,847	--	897	--	44	33	3	197	206	22
1974	--	240	51	406	625	2,010	--	932	--	46	34	3	270	242	23
1975	--	250	50	452	1,260	2,407	--	1,346	--	45	35	3	305	231	26
1976	--	270	52	540	1,109	2,440	--	1,320	--	45	48	3	312	240	24
Kenya															
Average: 1961-65	122	1,321	327	14	--	193	30	--	39	5	6	1	41	--	3

Continued

Table 3--Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-76--Continued

Country and year 1/	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops 2/	Citrus	Bananas and plantains	Sugar, raw	Peanuts, in shell	Cotton: seed	To- bac- co	Cof- fee 3/	Cocoa beans 3/	Cotton
1,000 metric tons															
Malawi															
Average:															
1961-65.....	--	807	--	6	142	--	--	--	--	146	10	17	--	--	5
1971.....	--	1,100	--	19	145	--	--	--	32	170	15	28	--	--	7
1972.....	--	1,338	--	30	147	--	--	--	34	170	15	30	--	--	7
1973.....	--	1,202	--	18	150	--	--	--	54	165	11	31	--	--	5
1974.....	--	1,280	--	21	150	--	--	--	53	165	15	27	--	--	7
1975.....	--	1,000	--	14	150	--	--	--	69	165	14	35	--	--	7
1976.....	--	1,200	--	14	150	--	--	--	70	165	12	38	--	--	6
Mali															
Average:															
1961-65.....	--	80	782	170	160	58	--	--	--	125	13	--	--	--	7
1971.....	--	80	675	170	150	60	--	--	--	152	50	--	--	--	25
1972.....	--	60	550	130	140	50	--	--	--	150	48	--	--	--	24
1973.....	--	80	550	100	140	50	--	--	--	100	38	--	--	--	19
1974.....	--	60	600	90	140	50	--	--	--	120	46	--	--	--	23
1975.....	--	60	675	110	150	60	--	--	--	100	74	--	--	--	37
1976.....	--	60	700	130	155	61	--	--	--	125	90	--	--	--	45
Morocco															
Average:															
1961-65.....	1,336	352	74	20	--	193	548	--	10	--	13	2	--	--	6
1971.....	2,188	390	121	3	--	275	844	--	225	--	16	3	--	--	8
1972.....	2,380	368	59	14	--	280	850	--	245	--	16	4	--	--	8
1973.....	1,574	217	52	10	--	280	939	--	220	--	16	4	--	--	9
1974.....	1,853	390	88	12	--	275	840	--	272	--	12	4	--	--	6
1975.....	1,575	371	75	29	--	275	599	--	255	--	12	4	--	--	5
1976.....	2,135	493	55	18	--	234	745	--	310	--	15	5	--	--	4
Niger															
Average:															
1961-65.....	1	3	830	11	135	--	--	--	--	210	4	--	--	--	2

Continued

Table 3--Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-76--Continued

Country and year 1/	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops 2/	Citrus	Bananas and plantains	Sugar, raw	Peanuts, in shell	Cotton-seed	To-bacco	Coffee fee 3/	Cocoa beans 3/	Cotton
Senegal															
Average:															
1961-65.....	--	32	483	100	151	18	2	--	--	1,006	--	--	--	--	--
1971.....	--	39	587	108	270	22	2	--	--	920	13	--	--	--	8
1972.....	--	20	323	37	270	22	2	--	--	610	15	--	--	--	9
1973.....	--	45	511	64	270	22	2	--	--	700	21	--	--	--	12
1974.....	--	42	685	114	270	22	2	--	--	900	25	--	--	--	15
1975.....	--	44	650	146	275	23	2	--	--	1,210	22	--	--	--	11
1976.....	--	50	700	168	114	24	2	--	--	1,100	32	--	--	--	16
Sierra Leone															
Average:															
1961-65.....	--	9	23	406	449	55	89	154	--	23	--	--	5	4	--
1971.....	--	11	13	500	505	64	106	178	--	20	--	--	6	6	--
1972.....	--	11	13	477	550	68	110	182	--	20	--	--	8	7	--
1973.....	--	12	17	479	560	70	115	186	--	20	--	--	4	8	--
1974.....	--	12	18	490	570	72	118	190	--	20	--	--	8	5	--
1975.....	--	14	17	517	585	74	121	194	--	20	--	--	5	6	--
1976.....	--	14	17	520	600	76	124	198	--	20	--	--	8	6	--
South Africa, Republic of															
Average:															
1961-65.....	834	5,248	292	--	--	415	436	43	1,080	221	23	27	--	--	11
1971.....	1,670	8,600	551	--	--	660	524	64	1,865	379	27	32	--	--	14
1972.....	1,746	9,483	510	--	--	679	581	81	1,915	395	32	31	--	--	16
1973.....	1,871	4,160	222	--	--	620	531	76	1,732	195	36	30	--	--	18
1974.....	1,596	11,105	682	--	--	728	594	99	1,883	525	80	29	--	--	40
1975.....	1,792	9,131	401	--	--	725	541	102	1,801	252	71	34	--	--	35
1976.....	2,015	7,395	290	--	--	713	560	98	2,000	149	38	30	--	--	19
Sudan															
Average:															
1961-65.....	36	17	1,559	--	120	4	5	--	16	256	308	--	--	--	157

Continued

Table 3--Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-76--Continued

Country and year 1/	Wheat	Corn	Sorghum and millet	Rice, paddy	Cassava	Other root crops 2/	Citrus	Bananas and plantains	Sugar, raw	Peanuts in shell	Cotton- seed	To- bac- co	Cof- fee 3/	Cocoa beans 3/	Cotton
1,000 metric tons															
Uganda															
Average:															
1961-65.....	--	216	720	--	1,164	967	--	240	122	182	131	2	154	--	66
1971.....	--	335	962	--	1,250	990	--	300	141	200	152	4	171	--	75
1972.....	--	375	940	--	1,250	1,000	--	300	89	215	162	4	171	--	80
1973.....	--	419	1,067	--	1,250	900	--	310	75	215	101	3	213	--	50
1974.....	--	505	1,243	--	1,100	1,000	--	320	59	200	61	2	186	--	30
1975.....	--	870	1,149	--	1,000	900	--	320	34	200	53	2	180	--	26
1976.....	--	870	1,210	--	1,000	900	--	310	35	200	51	2	168	--	25
Upper Volta															
Average:															
1961-65.....	--	100	953	34	31	47	--	--	--	122	6	--	--	--	3
1971.....	--	66	770	37	32	45	--	--	--	66	26	--	--	--	14
1972.....	--	59	793	30	30	40	--	--	--	60	28	--	--	--	15
1973.....	--	58	734	31	30	40	--	--	--	63	28	--	--	--	15
1974.....	--	62	1,075	36	30	40	--	--	--	65	28	--	--	--	15
1975.....	--	80	1,000	40	31	41	--	--	--	65	36	--	--	--	18
1976.....	--	88	905	40	32	42	--	--	--	65	44	--	--	--	22
Zaire															
Average:															
1961-65.....	2	239	40	62	6,491	268	--	1,380	35	127	28	--	53	6	15
1971.....	2	409	40	195	8,975	409	--	1,100	45	180	40	--	74	6	20
1972.....	2	433	58	206	8,950	389	--	1,200	50	180	40	--	80	6	21
1973.....	1	477	64	227	9,500	392	--	1,200	57	200	44	--	79	6	23
1974.....	3	524	70	240	10,000	407	--	1,300	63	230	40	--	69	5	18
1975.....	2	420	70	250	10,000	405	--	1,300	63	250	36	--	83	5	17
1976.....	2	450	70	291	10,500	417	--	1,325	68	250	33	--	86	5	9
Zambia															
Average:															
1961-65.....	1	5/187	--	--	145	3	--	--	--	5/15	1	9	--	--	--

Continued

Table 3--Africa: Production of selected agricultural commodities, by country, average 1961-65, annual 1971-76--Continued

[illegible]

-- = None or negligible.

1/ Data for 1976 are preliminary.

2/ Yams, cocoyams, sweetpotatoes, and white potatoes.

3/ Data are for the marketing year beginning in the year shown.

4/ Exportable production.

5/ Commercial production only.

6/ Total of listed countries.

Table 4--West Asia: Production of principal agricultural products, by country, average 1961-65, annual 1971-76

Country and year 1/	Wheat	Barley	Corn	Rice, paddy	Pulses: 2/	Grapes	Citrus fruit	Dates	Cotton	Cotton- seed	To- bac- co	Sugar- beets	Milk	Wool	Meat
<u>1,000 metric tons</u>															
Cyprus															
Average:															
1961-65.....	63	87	--	--	10	104	91	--	--	1	1	--	28	--	10
1971.....	97	112	--	--	12	182	257	--	--	--	1	--	64	1	35
1972.....	80	80	--	--	8	166	247	--	--	--	1	--	60	1	30
1973.....	4	3	--	--	5	95	333	--	--	--	1	--	50	1	30
1974.....	115	120	--	--	6	142	282	--	--	--	1	--	30	1	28
1975.....	65	70	--	--	5	171	233	--	--	--	1	--	30	1	28
1976.....	65	70	--	--	6	160	167	--	--	--	1	--	32	1	29
Iran															
Average:															
1961-65.....	2,800	970	16	851	107	257	3/41	302	117	258	16	1,058	1,554	18	193
1971.....	3,300	800	35	877	105	260	3/55	280	148	280	20	3,920	1,900	19	239
1972.....	4,034	800	40	1,200	107	260	3/57	300	208	320	19	3,925	1,900	18	290
1973.....	3,950	900	40	1,333	120	270	3/60	285	200	300	15	4,238	1,900	17	400
1974.....	3,900	800	50	1,077	113	350	3/63	310	230	450	12	4,125	1,910	17	608
1975.....	5,000	1,100	65	1,201	155	387	3/65	290	145	290	14	4,597	2,000	18	641
1976.....	5,500	1,150	80	1,276	160	420	3/68	300	165	330	18	4,800	2,160	18	727
Iraq															
Average:															
1961-65.....	849	851	4	141	35	n.a.	n.a.	312	8	17	9	n.a.	1,265	12	104
1971.....	822	432	5	307	46	n.a.	n.a.	450	14	29	14	27	1,300	12	100
1972.....	2,625	980	6	268	43	n.a.	n.a.	385	17	35	10	30	1,300	13	110
1973.....	957	462	6	157	39	n.a.	n.a.	395	14	29	10	28	1,320	12	157
1974.....	1,339	533	6	68	46	n.a.	n.a.	440	15	30	9	32	1,350	12	165
1975.....	845	400	5	61	50	n.a.	n.a.	380	16	32	9	32	1,400	12	170
1976.....	1,300	600	7	164	54	n.a.	n.a.	455	17	34	9	33	1,540	13	210
Israel															
Average:															
1961-65.....	90	66	8	--	3	71	4/759	--	17	26	1	263	376	--	86

Table 4--West Asia: Production of principal agricultural products, by country, average 1961-65, annual 1971-76--Continued

Country and year 1/	Wheat	Barley	Corn	Rice, paddy	Pulses: 2/	Grapes	Citrus fruit	Dates	Cotton	Cotton- seed	To- bac- co	Sugar- beets	Milk	Wool	Meat
1,000 metric tons															
Turkey															
Average:															
1961-65.....	7,092	3,447	950	205	578	2,744	352	--	273	448	130	3,403	3,938	43	443
1971.....	10,700	4,170	1,135	269	605	3,453	677	--	523	835	174	5,956	4,280	48	525
1972.....	9,500	3,725	1,030	188	650	3,010	712	--	544	870	178	5,896	4,445	50	461
1973.....	8,000	2,900	1,040	245	581	3,004	676	--	513	821	149	5,095	4,591	52	473
1974.....	8,300	3,330	1,200	231	653	3,006	877	--	600	958	204	5,707	4,672	52	553
1975.....	11,500	4,500	1,200	231	661	2,834	935	--	480	768	209	7,000	4,945	53	610
1976.....	13,000	4,900	1,230	252	734	3,840	945	--	470	747	302	9,000	5,000	54	693
Total 5/															
Average:															
1961-65.....	12,231	6,145	966	1,197	924	3,575	1,420	613	572	1,098	168	4,881	7,499	89	967
1971.....	16,016	5,697	1,170	1,453	968	4,333	2,808	730	879	1,455	224	10,540	8,412	91	1,202
1972.....	18,668	6,386	1,070	1,656	1,074	3,880	2,875	685	972	1,574	230	10,539	8,595	93	1,212
1973.....	13,867	4,413	1,080	1,735	860	3,753	3,086	680	920	1,462	196	9,869	8,787	92	1,406
1974.....	15,924	5,550	1,250	1,376	1,098	3,993	3,274	750	1,040	1,763	246	10,200	9,085	104	1,736
1975.....	19,348	6,729	1,265	1,493	1,058	3,907	3,056	670	853	1,437	255	12,155	9,650	95	1,877
1976.....	21,754	7,785	1,310	1,692	1,268	4,922	2,975	755	861	1,433	350	14,448	10,123	97	2,103

-- = None or negligible.

1/ Data for 1976 are preliminary.

2/ Pulses may include dry beans, broad beans, lentils, chickpeas, cowpeas, dry peas, and vetch.

3/ Oranges and tangerines only.

4/ Oranges, lemons, and grapefruit.

5/ Total of listed countries.

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